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U. S. DEPARTMENT OF AGRICULTURE,
OFFICE OF EXPERIMENT STATIONS,
A. C. TRUE, Director.

ORGANIZATION LISTS

OF THE

AGRICULTURAL COLLEGES AND EXPERIMENT STATIONS

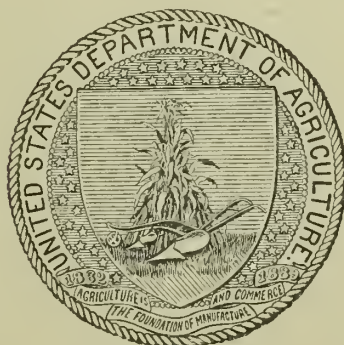
IN THE

UNITED STATES,

WITH

A LIST OF AGRICULTURAL EXPERIMENT STATIONS
IN FOREIGN COUNTRIES.

JANUARY, 1901.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1901.

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U. S. DEPARTMENT OF AGRICULTURE,
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ORGANIZATION LISTS

OF THE

AGRICULTURAL COLLEGES AND EXPERIMENT STATIONS

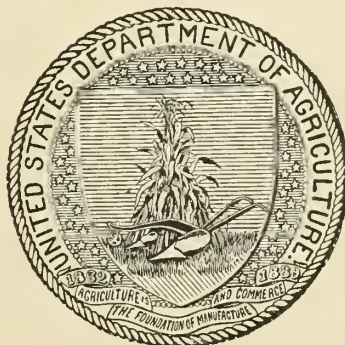
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LETTER OF TRANSMITTAL.

U. S. DEPARTMENT OF AGRICULTURE,
OFFICE OF EXPERIMENT STATIONS,
Washington, D. C., January 1, 1901.

SIR: I have the honor to transmit herewith manuscript of a bulletin containing the organization lists of agricultural colleges and experiment stations, a subject list of publications of the experiment stations received by this Office during 1900; the Federal legislation relating to the colleges and stations, and the rulings of the Post-Office, Treasury, and Agricultural Departments as to the construction of the act of Congress of March 2, 1887, establishing the stations. The list of agricultural experiment stations and kindred institutions in foreign countries has been revised. The matter has been compiled under my direction by Mr. V. A. Clark, of this Office, and I recommend its publication as Bulletin No. 88.

Respectfully,

A. C. TRUE,
Director.

Hon. JAMES WILSON,
Secretary of Agriculture.

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LIST OF ABBREVIATIONS.

Agr., Agriculture, Agriculturist, Agricultural.
Agron., Agronomy, Agronomist.
Anal., Analytical.
Anat., Anatomy.
Arbor., Arboriculture, Arboriculturist.
Archi., Architecture.
Arith., Arithmetic.
Assoc., Associate.
Asst., Assistant.
Astron., Astronomy.
Bact., Bacteriology, Bacteriologist.
Biol., Biology, Biologist, Biological.
Bot., Botany, Botanist, Botanical.
Chair., Chairman.
Chem., Chemist, Chemistry, Chemical.
Climat., Climatology, Climatologist.
Dept., Department.
Dir., Director.
Econ., Economy, Economic, Economics.
Elect., Electrical, Electricity.
Engin., Engineer, Engineering.
Engl., English.
Ent., Entomology, Entomologist.
Expt., Experiment, Experimental.
For., Forestry.
Gard., Gardener, Gardening.
Geol., Geology, Geologist, Geological.
Geog., Geography.
Gov., Governor.
Hist., History, Historical.
Hort., Horticulture, Horticulturist.
Husb., Husbandry.
Indus., Industrial, Industries, Industry.
Instr., Instructor.
Irrig., Irrigation.

Lab., Laboratory.
Lang., Language, Languages.
Libr., Library, Librarian.
Lit., Literature.
Math., Mathematics.
Mech., Mechanics, Mechanical.
Met., Meteorology, Meteorologist.
Mil., Military.
Min., Mineralogist, Mineralogy.
Myc., Mycology, Mycologist.
Path., Pathology, Pathologist.
Pedag., Pedagogics, Pedagogy.
Philos., Philosophy.
Phys., Physics, Physicist, Physical.
Physiol., Physiology, Physiological, Physiologist.
Polit., Political.
Pomol., Pomology, Pomologist.
Pract., Practical, Practice.
Prep., Preparatory.
Pres., President.
Prin., Principal.
Psych., Psychology.
Rhet., Rhetoric.
Sci., Science.
Sec., Secretary.
Sta., Station.
Sten., Stenographer, Stenography.
Supt., Superintendent.
Treas., Treasurer.
Univ., University.
V. Dir., Vice-Director.
Vet., Veterinary, Veterinarian.
Vit., Viticulture, Viticulturist.
Zool., Zoology, Zoologist.

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A. H. Purdue, M. A., <i>Geol. and Min.</i>	Mrs. E. W. Cole, <i>Instr. Math. and Hist.</i>
S. J. McLean, M. A., LL. B., Ph. D., <i>Econ. and Sociology.</i>	Mary Davis, <i>Instr. Engl.</i>
Junius Jordan, LL. D., <i>Philos. and Pedag.</i>	Linda Read, B. A., <i>Instr. Engl. and Math.</i>
	C. L. Newman, B. S., <i>Agr.</i>
	E. Walker, B. S., <i>Hort.</i>
	G. L. Teller, M. S., <i>Agr. Chem.</i>
	R. R. Dinwiddie, M. D., <i>Path. and Bact.</i>

CALIFORNIA.

University of California, Berkeley.

COURSES OF STUDY.

The university comprises several departments. The college of agriculture has a four-years' course which leads to the degree of B. S.

¹ On leave of absence in Germany.

BOARD OF INSTRUCTION.¹

Benjamin Ide Wheeler, PH. D., LL. D., <i>Pres.</i>	M. E. Jaffa, M. S., (<i>Asst.</i>) <i>Agr.</i>
E. W. Hilgard, PH. D., LL. D., <i>Agr.</i> ; <i>Dir. Agr. Expt. Sta.</i>	George E. Colby, M. S., <i>Instr. in Vit.</i> <i>Lab.</i>
E. J. Wickson, M. A., <i>Agr. Pract.</i>	A. M. dal Piaz, <i>Asst. in Vit. and Hort.</i>
W. A. Setchell, PH. D., <i>Bot.</i>	F. T. Bioletti, M. S., <i>Instr. in Charge of</i> <i>Vit., Olive Culture, and Bact.</i>
R. H. Loughridge, PH. D., (<i>Asst.</i>) <i>Agr.</i> <i>Geol. and Chem.</i>	Leroy Anderson, M. S. A., <i>Instr. Dairy</i> <i>Husb.</i>
C. W. Woodworth, M. S., (<i>Asst.</i>) <i>Ent.</i>	A. J. Cook, M. S., <i>Conductor Farmers'</i> <i>Institutes.</i>
J. B. Davy, <i>Asst. in Bot.</i>	D. T. Fowler, M. A., <i>Conductor Farmers'</i> <i>Institutes.</i>
Carroll Fowler, B. S., <i>Asst. in Ent.</i>	
F. J. Snow, <i>Student Asst. in Agr. Lab.</i>	

COLORADO.

The State Agricultural College of Colorado, Fort Collins.

COURSES OF STUDY.

The courses of study are four, each requiring four years in addition to one year of preparatory work, and each leading to the degree of B. S.: The agricultural course, the mechanical engineering course, the irrigation and civil engineering course, and the ladies' course. Provision is made for post-graduate work. The degrees of C. E. and M. E. are conferred upon those worthy of holding them by faculty action approved by the governing board. A commercial course, covering a period of two years, is established, entrance to which requires the same qualifications as for admission to the freshman class; no degree is given.

BOARD OF INSTRUCTION.

Barton O. Aylesworth, M. A., LL. D., <i>Pres.; Polit. Econ. and Logic.</i>	L. D. Crain, B. M. E., <i>Asst. in Mech. Engin.</i> <i>and Drawing.</i>
James W. Lawrence, B. S., <i>Mech. Engin.</i> <i>and Drawing.</i>	Allen P. Greenacre, B. S., <i>Asst. in Forge</i> <i>Room Work and Drawing.</i>
Louis G. Carpenter, M. S., <i>Civil and Irrig.</i> <i>Engin.</i>	William F. Garbe, <i>Asst. in Foundry Prac-</i> <i>tice.</i>
Wendell Paddock, M. S., <i>Bot. and Hort.</i>	Frank L. Watrous, <i>Asst. in Agr.</i>
Clarence P. Gillette, M. S., <i>Zool. and Ent.</i>	C. J. Griffith, B. S., <i>Asst. in Dairy.</i>
B. C. Buffum, M. S., <i>Agr.</i>	Carl H. Potter, B. S., <i>Asst. in Bot. and</i> <i>Hort.</i>
William P. Headden, M. A., PH. D., <i>Chem.</i>	Charles F. Mergelman, <i>Asst. in Floricul-</i> <i>ture and Landscape Gard.</i>
Theodosia G. Ammons, <i>Domestic Sci.</i>	Louis A. Test, B. M. E., A. C., <i>Asst. in Chem.</i>
Charles J. Gilkison, B. S., <i>Prin. Commer-</i> <i>cial Dept.</i>	Fred Alford, B. S., <i>Asst. in Chem.</i>
Edward B. House, B. S., E. E., <i>Math.</i>	Joseph Lownes, B. S., <i>Asst. in Chem.</i>
A. M. Hawley, <i>Sec. of the Faculty.</i>	E. S. G. Titus, B. S., <i>Asst. in Zool. and Ent.</i>
Edward M. Traber, B. A., <i>Engl. and</i> <i>Philos.</i>	Lathrop M. Taylor, B. S., <i>Asst. in Sten.</i> <i>and Typewriting.</i>
Virginia Corbett, <i>Hist. and Lit.</i>	Charles Golding-Dwyre, jr., <i>Asst. in Book-</i> <i>keeping.</i>
Richard A. Maxfield, B. S., <i>Mil. Sci. and</i> <i>Tactics.</i>	Ralph H. Hess, B. S., <i>Asst. in Math.</i>
J. A. Stump, <i>Asst. in Phys. and Civil Engin.</i>	Marguerite E. Stratton, B. S., <i>Libr.</i>
Robert E. Trimble, B. S., <i>Asst. in Met. and</i> <i>Irrig. Engin.</i>	Frank H. Thompson, B. S., <i>Sten.</i>

¹Includes only instructors in subjects directly relating to agriculture. Other members of the university faculty may give instruction to students pursuing the agricultural course.

CONNECTICUT.

The Connecticut Agricultural College, Storrs.

COURSE OF STUDY.

The course of study requires four years for completion and leads to the degree of B. Agr.

BOARD OF INSTRUCTION.

Geo. W. Flint, M. A., <i>Pres.</i> ; <i>Engl. and Math.</i>	H. S. Patterson, <i>Instr.</i> <i>Wood and Iron Work, Mech. Drawing.</i>
B. F. Koons, PH. D., <i>Zool. and Nat. Hist.</i>	H. A. Ballou, B. S., <i>Instr.</i> <i>Bot. and For.</i>
C. S. Phelps, B. S., <i>Agr.</i>	Marcia G. Greenough, PH. B., <i>Domestic Sci.</i>
C. E. Waters, PH. D., <i>Chem. and Phys.</i>	C. L. Beach, B. S., <i>Instr.</i> <i>Dairying.</i>
A. G. Gulley, M. S., <i>Hort.</i>	W. A. Stocking, B. S. A., <i>Farm Supt.</i>
R. W. Stimson, M. A., <i>Rhet. and Engl. Lit.</i>	R. Dallas, <i>Instr.</i> <i>Poultry Dept.</i>
N. S. Mayo, M. S., D. V. M., <i>Vet. Sci.</i>	T. D. Knowles, <i>Instr.</i> <i>Phys. Culture and Prep. Dept.</i>
C. A. Wheeler, B. A., <i>Math., Hist.</i>	C. E. Myers, <i>Instr.</i> <i>Farm Accounts and Business Methods.</i>
H. R. Monteith, B. A., <i>Engl., Math., Hist., Civics, and Polit. Sci.</i>	

DELAWARE.

Delaware College, Newark.

COURSES OF STUDY.

The courses of study are seven in number and require four years each for completion: The classical course and the Latin scientific course, each leading to the degree of B. A.; the agricultural and the general-science courses, each leading to the degree of B. S.; three courses in engineering, leading to the degrees of B. C. E., B. M. E., and B. E. E. There are also a two-years' course and a short winter course of thirteen weeks in agriculture.

BOARD OF INSTRUCTION.

Geo. A. Harter, M. A., PH. D., <i>Pres.</i> ; <i>Math. and Phys.</i>	E. S. Avis, Captain, U. S. A. (Retired), <i>Mil. Sci. and Tactics</i> ; (<i>Asst.</i>) <i>Math. and Engin.</i>
T. R. Wolf, M. A., PH. D., <i>Chem., Min., Sanitary Sci., and Geol.</i>	Wm. H. Purnell, M. A., LL. D., <i>Instr.</i> <i>Elocution and Oratory.</i>
Frederic H. Robinson, C. E., <i>Civil Engin.</i>	N. H. Brown, M. A., M. E., PH. D., (<i>Asst.</i>) <i>Mech. and Elect. Engin.</i>
William H. Bishop, B. S., <i>Agr. and Biol.</i>	Joseph F. Brewster, <i>Asst. in Chem.</i>
H. P. Eves, D. V. M., <i>Vet. Sci.</i>	Lee O. Willis, M. E. E., <i>Instr.</i> <i>Shopwork.</i>
W. A. Pratt, C. E., E. E., <i>Mech. and Elect. Engin.</i>	Arthur T. Neale, PH. D., <i>Lecturer in Agr.</i>
E. N. Vollandigham, PH. B., <i>Engl. Lang. and Lit. and Polit. Sci.</i>	Frederick D. Chester, M. S., <i>Lecturer in Myc.</i>
E. W. Manning, M. A., PH. D., <i>Modern Lang.</i>	Charles L. Penny, M. A., <i>Lecturer in Agr. Chem.</i>
E. Conover, M. A., <i>Latin and Greek.</i>	G. Harold Powell, M. S., <i>Lecturer in Hort.</i>
E. D. Sanderson, B. S. A., <i>Lecturer in Ent.</i>	

State College for Colored Students, Dover.

COURSES OF STUDY.

There are five courses of study: Classical, scientific, agricultural, engineering, and normal.

BOARD OF INSTRUCTION.

Rev. William C. Jason, M. A., B. D., <i>Pres.; Greek, Latin, Mental and Moral Sci.</i>	Alonzo S. Gray, B. A., <i>Supt. Indus. Dept.; Math., Phys., and Chem.</i>
Samuel L. Conwell, B. A., <i>Sec.; Common Engl. Branches and Biol.</i>	Miss Lydia P. Laws, <i>Normal Dept.; Hist., Engl. Lit.; Matron.</i>
	John Boyken Aiken, <i>Instr. Pract. Agr.</i>

FLORIDA.

Florida Agricultural College, Lake City.

COURSES OF STUDY.

Besides a subcollegiate and a business course, there are three courses of study leading to degrees: Agricultural course, B. S. Agr.; mechanical course, B. S. Eng., and Latin scientific course, B. S. Lit. These three courses are of equal length, and are equivalent in the studies pursued.

BOARD OF INSTRUCTION.

W. F. Yocum, M. A., D. D., <i>Pres.; Dir. Expt. Sta.</i>	Maria Justa Ana De Figueroa, <i>Instr. Spanish and French.</i>
J. D. Callaway, <i>Sec. Board of Trustees (ex officio).</i>	Bessie C. De Sha, <i>Instr. Sten., Typewriting, and Telegraphy.</i>
C. V. Waugh, M. A., <i>Philos. and Latin.</i>	Augusta E. Barnes, B. A., <i>Asst. in Prep. School.</i>
Mary Law McClintock, B. A., <i>Engl. and Hist.</i>	Lucia McCulloch, <i>Asst. in Biol.</i>
Robert L. Borger, B. A., <i>Math.</i>	John M. Young, B. S., <i>Instr. Physics and Elect.</i>
N. H. Cox, B. S., <i>Mech. Arts and Drawing.</i>	N. H. Cox, B. S., <i>Commandant of Cadets and Instr. Tactics.</i>
Horace E. Stockbridge, Ph. D., <i>Agr.</i>	J. Franklin Appell, M. D., <i>College Surgeon and Physician.</i>
H. K. Miller, M. S., <i>Chem.</i>	W. P. Jernigan, <i>Auditor, Bookkeeper, and Clerk.</i>
A. W. Blair, B. S., M. A., <i>Asst. in Chem.</i>	C. A. Finley, <i>Supt. Mess Hall and Grounds.</i>
H. H. Hume, M. S., <i>Biol. and Hort.</i>	Mrs. E. J. Harris, <i>Matron of Mess Hall.</i>
H. A. Gossard, M. S., <i>Zool. and Ent.</i>	Minnie Helveston, <i>Sten.</i>
Melville C. Marion, B. L., <i>Prin. Prep. School.</i>	Virgie M. Wigfield, <i>Libr. to College and Sta., and Mailing Clerk.</i>
R. N. Hadley, M. Accts., <i>Instr. Bookkeep- ing, Commercial Law, Commercial Arith., and Penmanship.</i>	Miss Janie Brown, <i>Piano.</i>
E. R. Wharton, <i>Instr. Mech. Arts and Drawing.</i>	

Florida State Normal and Industrial College, Tallahassee.

COURSES OF STUDY.

The courses of study are seven: Normal, academic, preparatory, manual training, agricultural, domestic economy, and music.

BOARD OF INSTRUCTION.

T. De S. Tucker, M. A., <i>Pres.</i>	Mrs. M. E. V. Clemons, <i>Engl. and Matron.</i>
J. W. Hoffman, <i>Agr.</i>	Miss Ellen O. Paige, <i>Domestic Econ.</i>
Geo. M. Sampson, M. A., <i>Math.</i>	Miss Theresa Smith, <i>Teacher Model School.</i>
Mrs. F. Reynolds, <i>Prin. Academic Dept.</i>	Mrs. C. B. Tucker, <i>Dairying.</i>
Miss Fannie L. Shook, <i>Asst. in Academic Dept.</i>	Miss Marietta E. Hall, <i>Asst. in Engl. and Bookkeeping.</i>
Miss Willa M. Hadley, <i>Engl. and Music.</i>	L. D. Hileland, <i>Mech. Arts and Drawing.</i>

GEORGIA.

Georgia State College of Agriculture and Mechanic Arts, *Athens*.

COURSES OF STUDY.

There are four courses of study, each requiring four years for completion, each leading to the degree of B. S., differing in options and specialization and characterized as general, agriculture, civil engineering, and electrical engineering. There are also graduate courses of one year each, leading to degrees of M. S., C. E., and M. Agr.; special courses in chemistry, mining, and metallurgy, in agriculture, in electrical engineering, and in building and architecture, in which certificates of attainment are given, and a short winter course in agriculture, comprising instruction in the English branches, agriculture, and dairying.

BOARD OF INSTRUCTION.

H. C. White, PH. D., <i>Pres.; Chem.</i>	H. N. Starnes, B. A., <i>Agr. and Hort.</i>
A. H. Patterson, M. A., <i>Phys.</i>	C. M. Snelling, B. S., <i>Math.</i>
Jno. Morris, M. A., <i>Modern Lang.</i>	C. H. Herty, PH. D., (<i>Adjunct</i>) <i>Chem.</i>
R. E. Park, M. A., <i>Engl.</i>	U. H. Davenport, B. S., <i>Instr. Phys. and</i> <i>Elect. Engin.</i>
D. C. Barrow, jr., C. and M. E., <i>Math.</i>	E. L. Griggs, <i>Instr. Drawing; Commandant.</i>
C. M. Strahan, C. and M. E., <i>Engin.</i>	J. M. Stephenson, B. A., <i>Instr. Engl.</i>
John P. Campbell, B. A., PH. D., <i>Biol.</i>	H. J. Wing, <i>Instr. Dairying.</i>
J. H. T. McPherson, PH. D., <i>Hist.</i>	
J. Lustrat, M. A., <i>Modern Lang.</i>	

IDAHO.

College of Agriculture of the University of Idaho, *Moscow*.

COURSE OF STUDY.

The regular course in agriculture requires four years for its completion and leads to the degree of B. S.

BOARD OF INSTRUCTION.

J. A. McLean, PH. D., <i>Pres.; Hist. and</i> <i>Polit. Sci.</i>	Frederick M. Padelford, M. A., PH. D., <i>Engl. Lit.</i>
Louis F. Henderson, PH. B., <i>Bot.</i>	Alfred S. Miller, M. A., PH. D., <i>Mining</i> <i>and Metallurgy.</i>
John M. Aldrich, M. S., <i>Zool.; Curator of</i> <i>Museum.</i>	David H. Carnahan, M. A., <i>Modern Lang.</i> —— ———, <i>Math. and Commandant of</i> <i>Cadets.</i>
John E. Bonebright, B. S., M. A., <i>Phys.</i>	Arthur P. Adair, C. E., <i>Civil Engin.</i>
I. J. Cogswell, B. M., <i>Music.</i>	Sara E. Poe, B. L., <i>Instr. Engl. Prep.</i> <i>School.</i>
Fred A. Huntley, B. S. A., <i>Hort.</i>	Flora P. Moore, B. S., <i>Instr. Math.</i>
Hiram T. French, M. S., <i>Agr.</i>	Agatha Jean Sonna, B. L., <i>Instr. Latin and</i> <i>Hist. Prep. School.</i>
Samuel Avery, M. A., PH. D., <i>Chem.</i>	Hal. T. Beans, M. S., (<i>Asst.</i>) <i>Agr. Chem.</i>
Aurelia I. Henry, B. L., <i>Elocution and</i> <i>Phys. Culture.</i>	
William Wilson Baden, M. A., PH. D., <i>Greek and Latin.</i>	
Margaret McCallie, <i>Libr.</i>	
Herbert T. Condon, <i>Registrar and Sec. of Faculty.</i>	

ILLINOIS.

College of Agriculture of the University of Illinois, Urbana.

COURSE OF STUDY.

The regular course requires four years for completion and leads to the degree of B. S. Provision is also made for special students.

BOARD OF INSTRUCTION.

Andrew S. Draper, LL. D., <i>Pres. Univ.</i>	David Kinley, PH. D., <i>Econ.</i>
Eugene Davenport, M. AGR., <i>Dean; Animal Husb.</i>	Edmond G. Fehét, Major, U. S. A. (Retired), <i>Mil. Sci.</i>
Thomas J. Burrill, PH. D., LL. D., <i>Bot. and Hort.</i>	Albert P. Carman, D. Sc., <i>Phys.</i>
Stephen A. Forbes, PH. D., <i>Zool.</i>	George T. Kemp, PH. D., M. D., <i>Physiol.</i>
Charles W. Rolfe, M. S., <i>Geol.</i>	Frank Smith, M. A., <i>Zool.</i>
Donald McIntosh, V. S., <i>Vet. Sci.</i>	Cyril Geo. Hopkins, PH. D., <i>Agron.</i>
Edgar J. Townsend, PH. D., <i>Math.</i>	Neil C. Brooks, PH. D., <i>German.</i>
Evarts B. Greene, PH. D., <i>Hist.</i>	Martha J. Kyle, M. A., <i>Rhet.</i>
Violet D. Jayne, M. A., <i>Engl.</i>	Oscar Quick, M. A., <i>Phys.</i>
Lester P. Breckenridge, PH. B., <i>Mech. Engin.</i>	Edward J. Lake, B. S., <i>Art and Design.</i>
Harry S. Grindley, D. Sc., <i>Chem.</i>	Wilbur J. Fraser, B. S., <i>Dairying.</i>
T. A. Clark, B. L., <i>Rhet.</i>	Joseph C. Blair, <i>Hort.</i>
Herman S. Piatt, PH. D., <i>Romanic Lang.</i>	George M. Holferty, M. S., <i>Bot.</i>
Arthur H. Daniels, PH. D., <i>Philos.</i>	William J. Kennedy, B. AGR., <i>Animal Husb.</i>
Charles W. Tooke, M. A., <i>Public Law and Administration.</i>	John W. Lloyd, B. S. A., <i>Hort.</i>
Arthur W. Palmer, D. Sc., <i>Chem.</i>	Hugh E. Ward, M. S., <i>Soil Phys.</i>
Frank F. Frederick, <i>Art and Design.</i>	Oscar Erf, B. S., <i>Dairying.</i>
Samuel W. Parr, M. S., <i>Applied Chem.</i>	Arch. D. Shamel, B. S., <i>Farm Crops.</i>
	Fred R. Crane, B. S., <i>Farm Mech.</i>
	Albert R. Curtiss, <i>Woodworking.</i>
	Henry Jones, <i>Blacksmith.</i>

INDIANA.

School of Agriculture, Horticulture, and Veterinary Science of Purdue University, Lafayette.

COURSE OF STUDY.

The course of study requires four years for completion and leads to the degree of B. S.

BOARD OF INSTRUCTION.¹

Winthrop Ellsworth Stone, PH. D., <i>Pres. Univ.</i>	Henry Augustus Huston, M. A., A. C., <i>Agr. Chem.</i>
William Carroll Latta, M. S., <i>Agr.</i>	Ervin Sidney Ferry, B. S., <i>Phys.</i>
Charles Sumner Plumb, B. S., <i>Animal Indus. and Dairying.</i>	Emma Montgomery McRae, M. A., <i>Engl. Lit.</i>
James Troop, M. S., <i>Hort. and Ent.</i>	Thomas Francis Moran, PH. D., <i>Hist. and Polit. Econ.</i>
Robert A. Craig, D. V. M. (<i>Instr.</i>), <i>Vet. Sci.</i>	Ernst J. Fluegel, PH. D., <i>German.</i>
Stanley Coulter, PH. D., <i>Biol.</i>	Pauline Mariotte-Davies, PH. D., <i>French.</i>
Joseph Charles Arthur, D. Sc., <i>Vegetable Physiol. and Path.</i>	Clarence Abiathar Waldo, PH. D., <i>Math.</i>
Percy Norton Evans, B. S., PH. D., <i>Chem.</i>	Moses Cobb Stevens, M. A., <i>Math.</i>

¹This list does not include the instructors exclusively engaged in the schools of Engineering, Science, and Pharmacy.

BOARD OF INSTRUCTION—continued.

Thomas Greene Alford, M. A., <i>Math.</i>	Jacob Westlund, PH. D., <i>Instr. Math.</i>
Erastus Test, M. A., M. D., <i>Math.</i>	J. B. E. Jonas, M. A., PH. D., <i>Instr. German.</i>
Laura Anne Fry, <i>Indus. Art.</i>	John Heiss, M. A., <i>Instr. German.</i>
Nellie Phillips Samson, <i>Instr. Wood Carving.</i>	Mary Doan, B. L., M. S., <i>Instr. Engl.</i>
Katherine Eliza Golden, M. S., <i>Instr. Biol.</i>	Caroline Ernestine Shoemaker, M. S., <i>Instr. Engl.</i>
William Henry Test, M. S., <i>Instr. Chem.</i>	James D. Hoffman, M. E., <i>Instr. Wood Shop.</i>
James Henry Ransom, PH. D., <i>Instr. Chem.</i>	Alpha Pierce Jamison, B. M. E., <i>Instr. Mech. Drawing.</i>
Severance Burrage, B. S., <i>Instr. Sanitary Sci.</i>	H. E. Van Norman, <i>Asst. in Dairy.</i>
Edward E. Reynolds, M. E., <i>Instr. Phys.</i>	John Harrison Skinner, B. S., <i>Asst. Agr.</i>
Alfred M. Kenyon, M. A., PH. D., <i>Instr. Math.</i>	Samuel Morgan, <i>Asst. in Forge Room.</i>
Winfred Horton Osborne, A. B., <i>Instr. Math.</i>	Charles I. Freeman, <i>Phys. Dir.</i>
	Elizabeth Day Swan, <i>Libr.</i>
	Ruth Dunbar Raub, <i>Asst. Libr.</i>

IOWA.

Iowa State College of Agriculture and the Mechanic Arts, Ames.

COURSES OF STUDY.

The courses of study are eight: The course in agriculture, leading to the degree of B. Agr.; the course in veterinary science, leading to the degree of D. V. M.; the course in mechanical engineering, leading to the degree of B. M. E.; the course in civil engineering, leading to the degree of B. C. E.; the course in electrical engineering, leading to the degree of B. S. in E. E.; the course in mining engineering, leading to the degree of B. M. E.; the course in sciences as related to the industries, leading to the degree of B. S.; and the course in general and domestic science for ladies, leading to the degree of B. S. The veterinary course requires three years for completion; each of the others, four years. There are also a short winter course in stock judging and dairying, and group courses in the sciences.

BOARD OF INSTRUCTION.

W. M. Beardshear, M. A., LL. D., <i>Pres.</i>	William Eugene Harriman, B. S., M. D., <i>Histology and Path.</i>
M. Stalker, M. S., V. S., <i>Vet. Sci.</i>	Charles F. Curtiss, B. S., M. S. AGR., <i>Agr.; Dir. Expt. Sta.</i>
J. L. Budd, M. H., <i>Emeritus in Hort.</i>	Miss Mary A. Sabin, <i>Domestic Econ.</i>
Edgar William Stanton, M. S., <i>Math. and Econ. Sci.</i>	Miss Lizzie May Allis, B. A., M. A., <i>French and German.</i>
Gen. James Rush Lincoln, <i>Mil. Sci.</i>	Louis Bevier Spinney, B. M. E., M. S., <i>Phys. and Elect. Engin.</i>
Alfred Allen Bennett, M. S., <i>Chem.</i>	John Alexander Craig, B. S. A., <i>Animal Husband.</i>
Louis Hermann Pammel, B. AGR., M. S., PH. D., <i>Bot.</i>	Samuel Walker Beyer, B. S., PH. D., <i>Geol. and Min. Engin.</i>
James Wilson, ¹ M. S. AGR., <i>Dean in Agr. Engin.</i>	Alvin B. Noble, PH. B., <i>Rhet. and Engl. Lit.</i>
George Welton Bissell, M. E., <i>Mech. Engin.</i>	Henry E. Summers, B. S., <i>Zool.</i>
Anson Marston, C. E., <i>Civil Engin.</i>	
Orange H. Cessna, B. S., D. D., <i>Hist., Psych., and Ethics.</i>	
Julius Buel Weems, PH. D., <i>Agr. Chem.</i>	

¹ On leave.

BOARD OF INSTRUCTION—continued.

- Homer C. Price, M. S., *Hort. and For.*
 Adrian M. Newens, B. O., *Elocution and Oratory and Assoc. in Engl.*
 John J. Repp, D. V. M., *Path. and Therapeutics and Sta. Vet.*
 Warren H. Meeker, M. E., (*Asst.*) *Mech. Engin.*
 Mrs. Marian H. Kilbourne, *Preceptress.*
 George Lewis McKay, *Dir. and Instr. in Dairying and Cheese Making.*
 Burton L. Lanphear, M. M. E., (*Asst.*) *Phys. and Elect. Engin.*
 H. J. Burt, B. C. E., (*Asst.*) *Civil Engin.*
 Louis A. Klein, D. V. M., *Theory and Pract. of Medicine and Sanitary Sci.*
 John H. McNeill, D. V. M., *Anat. and Prin. and Pract. of Surgery.*
 Frank J. Resler, PH. B., *Dir. of Music and Vocalist.*
 Miss Maria M. Roberts, B. L., *Instr. Math.*
 Miss Elmina Wilson, C. E., *Instr. Civil Engin.*
 Talbot Lenox, *Instr. Machine Shops.*
 Ezra C. Potter, *Instr. Pattern Shop.*
 Louis E. Young, B. M. E., *Min. Engin.*
 Edwin Clark Boutelle, B. M. E., *Instr. Forge and Foundry.*
 Clarence Henry Eckles, B. AGR., M. S., *Instr. Dairy Bact.*
 Mrs. Elizabeth Resler, PH. B., *Instr. Instrumental Music.*
 Joseph J. Edgerton, B. AGR., *Instr. Agr. Phys. and Farm Foreman.*
 James Atkinson, B. S. AGR., *Instr. Agr.*
 Miss Lola Placeway, B. S., *Instr. Chem.*
 Miss Sarah Ellis, B. L., *Instr. Domestic Econ.*
 Miss Bessie B. Larrabee, B. A., *Instr. Engl.*
 Edw. E. Little, B. S. AGR., *Instr. Hort.*
 Miss Hazel Leoni Beardshear, B. L., *Instr. Chem.*
 Gordon F. Dodge, B. M. E., *Instr. Mech. Engin. and Frechand Drawing.*
 J. C. Brown, B. S. AGR., *Instr. Agr. Chem.*
 C. E. Ellis, B. S. AGR., *Instr. Agr. Chem.*
 F. W. Faurot, B. S., *Instr. General Bot.*
 A. Estella Paddock, B. S., *Asst. in General Bot.*
 Miss Alice Hess, B. S., *Instr. Domestic Econ.*
 Ira A. Williams, B. S., *Asst. in Geol. and Mining.*
 Sara Miles, M. E., *Instr. French and German.*
 C. E. Woodruff, *Dir. Phys. Culture; Instr. Latin.*
 Miss Ida S. Simonson, B. L., *Instr. Engl.*
 Miss Elizabeth Maclean, B. D., *Instr. Engl.*
 Miss Julia Colpitts, M. A., *Instr. Math.*
 Ernest Alanson Pattengill, B. S., *Instr. Math.*
 A. T. Irwin, *Instr. Greenhouse Handicraft.*
 George M. Rommel, B. S. AGR., *Asst. in Animal Husb.*
 E. H. Webster, B. S. AGR., *Asst. in Dairying.*
 Geo. Judisch, *Instr. Pharmacy.*
 W. E. Day, *Hospital Steward.*
 Miss Vina Elethe Clark, *Libr.*
 Miss Olive E. Stevens, B. L., *Asst. Libr.*

KANSAS.

Kansas State Agricultural College, Manhattan.

COURSES OF STUDY.

There are five regular courses of study, each requiring four years for completion and leading to the degree of B. S.—general science, agriculture, domestic science, mechanical engineering, electrical engineering; four short courses, each requiring two terms, except the dairy, which is one term—agriculture and mechanics, horticulture and mechanics, domestic science, and dairy. The degree of M. S. is given upon post-graduate study, with satisfactory evidence of proficiency, after two years, one of which must be resident.

BOARD OF INSTRUCTION.

Ernest R. Nichols, M. A., <i>Pres.</i>	Miss Alice Rupp., <i>Instr. Engl.</i>
John D. Walters, M. S., <i>Indus. Art and Designing.</i>	Charles Eastman, <i>Cadet Major and Acting Commandant.</i>
Alexander B. Brown, M. A., <i>Music.</i>	William L. House, <i>Foreman Carpenter Shop.</i>
Julius T. Willard, M. S., <i>Applied Chem.; Dir. Exp. Sta.</i>	Chas. W. Pape, M. S., <i>Asst. Zool. and Asst. Curator Museum.</i>
———, <i>Bot.</i>	R. W. Clothier, M. S., <i>Asst. Chem.</i>
Frederic A. Metcalf, O. M., <i>Oratory.</i>	Margaret J. Minis, <i>Asst. Libr.</i>
George F. Weida, Ph. D., <i>Pure Chem.</i>	R. H. Brown, B. S., M. T., <i>Asst. in Music.</i>
Henry M. Cottrell, M. S., <i>Agr.; Supt. Farm.</i>	J. M. Westgate, M. S., <i>Asst. in Bot.</i>
Miss Minnie Ava Nellie Stoner, B. S., <i>Household Econ.; Supt. Domestic Sci. Dept.</i>	May Secrest, B. S., <i>Asst. in Domestic Art.</i>
Joseph D. Harper, M. S., <i>Mech. Engin.; Supt. Shops.</i>	Wm. Anderson, B. S., <i>Asst. in Math.</i>
Edwin A. Popenoe, M. A., <i>Hort. and Ent.; Supt. Orchards and Gardens.</i>	Gertrude Barnes, <i>Asst. Libr.</i>
Frank C. Lockwood, Ph. D., <i>Hist. and Econ.</i>	Albert Dickens, B. S., <i>Asst. Hort.</i>
Benj. L. Remick, Ph. M., <i>Math.</i>	William Baxter, <i>Foreman Greenhouses.</i>
Benj. F. Eyer, <i>Phys. and Elect. Engin.</i>	J. G. Haney, B. S., <i>Asst. in Feeding and Field Expts.</i>
C. E. Goodell, M. A., <i>Hist. and Econ.</i>	Mary Pritner, B. S., <i>Asst. in Domestic Sci.</i>
Tait Butler, V. S., <i>Vet. Sci.</i>	Theodore Lindquist, M. S., <i>Asst. in Phys.</i>
Miss Harriet Howell, <i>Supt. Domestic Art.</i>	W. M. Sawdon, B. S., <i>Asst. Mech.</i>
Joshua D. Rickman, I. T. U., <i>Printing.</i>	O. I. Purdy, B. S., <i>Asst. in Printing.</i>
Miss Josephine T. Berry, B. A., <i>Libr.</i>	Ada Rice, B. S., <i>Asst. in Prep. Dept.</i>
B. S. McFarland, M. A., <i>Prin. Prep. Dept.</i>	Louis Wabnitz, <i>Foreman Iron Shops.</i>
Miss Florence Ball, <i>Instr. Phys. Culture.</i>	Henry Van Leeuwen, <i>Instr. Cheese Making.</i>
Miss Loreno E. Clemons, B. S., <i>Sec.</i>	E. W. Curtis, <i>Instr. Butter Making.</i>
Septimus Sisson, B. S., V. S., (<i>Assoe.</i>) <i>Vet. Sci.</i>	Florence L. Grant, <i>Asst. in Drawing.</i>
D. H. Otis, M. S., (<i>Asst.</i>) <i>Dairying.</i>	A. T. Kinsley, B. S., <i>Asst. in Vet. Sci.</i>
William Arch McKeever, M. A., (<i>Asst.</i>) <i>Engl. and Philos.</i>	Elizabeth Agnew, B. S., <i>Asst. in Domestic Sci.</i>
Miss Josephine C. Harper, <i>Instr. Math.</i>	E. C. Gasser, <i>Foreman Blacksmith Shop and Foundry.</i>
Archie Huycke, <i>Sec. to Pres.</i>	Jacob Lund, M. S., <i>Engin.</i>
	C. Jeannette, B. S., <i>Executive Clerk.</i>
	W. R. Lewis, <i>Janitor.</i>

KENTUCKY.

Agricultural and Mechanical College of Kentucky, Lexington.

COURSES OF STUDY.

The regular courses of study are eight, each requiring four years for completion: The agricultural course, leading to the degree of B. Agr.; three scientific courses, leading to the degree of B. S.; the classical course, leading to the degree of B. A.; the mechanical engineering course, leading to the degree of B. M. E.; the civil engineering course, leading to the degree of B. C. E., and the normal course, leading to the degree of B. Ped. Certificates of proficiency are given to those who do not complete a course undertaken.

BOARD OF INSTRUCTION.

J. K. Patterson, PH. D., LL. D., <i>Pres.</i> ; <i>Metaphysics and Civil Hist.</i>	C. R. Sturdevant, M. E., <i>Elect. Engin.</i>
J. G. White, M. A., <i>Math. and Astron.</i>	W. T. Carpenter, <i>Mil. Sci.</i>
Paul Wernicke, <i>French and German Lang. and Lit.</i>	J. W. Pryor, M. D., <i>Anat. and Physiol.</i>
J. H. Neville, M. A., LL. D., <i>V. Pres.</i> ; <i>Latin and Greek Lang. and Lit.</i>	W. K. Patterson, M. A., <i>Prin. Academy.</i>
J. H. Kastle, PH. D., <i>Chem.</i>	J. L. Logan, B. A., <i>Asst. in Academy.</i>
R. N. Roark, PH. D., <i>Prin. Normal Dept.</i>	Milford White, B. C. E., <i>Asst. in Normal Dept.</i>
Arthur M. Miller, M. A., <i>Zool. and Geol.</i>	R. L. Blanton, M. LIT., <i>Asst. in Greek and Latin.</i>
C. W. Mathews, B. S., <i>Agr., Hort., and Bot.</i>	J. M. Davis, B. A., B. S., <i>Asst. in Academy.</i>
J. P. Brooks, M. S., <i>Civil Engin.</i>	V. E. Muncy, B. S., <i>Asst. in Academy.</i>
M. L. Pence, M. S., <i>Phys.</i>	John Theodore Faig, M. E., <i>Asst. in Mech. Engin.</i>
F. Paul Anderson, M. E., <i>Mech. Engin.</i>	J. R. Johnson, B. M. E., <i>Asst. in Math.</i>
Alexander St. Clair MacKenzie, M. A., <i>Engl. Lang. and Lit.</i>	L. K. Frankel, <i>Asst. in Mech. Engin.</i>
	J. E. Winston, <i>Asst. in Academy.</i>

The State Normal School for Colored Students, Frankfort.

COURSES OF STUDY.

The courses of study are six: Normal, carpentry, agriculture, cooking, dressmaking, and printing. The school grants State diplomas to normal graduates.

BOARD OF INSTRUCTION.

James S. Hathaway, M. A., M. D., <i>Pres.</i> ; <i>Psych., Pedag., Latin, and Hygiene.</i>	Mary E. Jackson, <i>Normal Dept.</i>
W. D. Thomas, B. A., <i>Natural Sci. and Agr.</i>	Sam'l M. Van Cleave, <i>Prep. Dept.</i>
Moses A. Davis, <i>Math., Mech. and Manual Training.</i>	Mrs. Mary C. Reed, <i>Sewing.</i>
	Miss Mattie A. Carr, B. A., <i>Matron; Cooking.</i>

James E. French, *Printing.*

LOUISIANA.**Louisiana State University and Agricultural and Mechanical College, Baton Rouge.**

COURSES OF STUDY.

The regular courses of study are eight, each requiring four years for completion, except the sugar course, which requires five years: The course in agriculture, the course in sugar cultivation and manufacture, the commercial course, the course in civil engineering, the course in mechanics, the general science course, the Latin science course, and the literary course, the first six leading to the degree of B. S., the others to the degree of B. A. A preparatory department, with a course covering one year, is also provided.

BOARD OF INSTRUCTION.

Thomas D. Boyd, M. A., LL. D., <i>Pres.</i>	C. A. Smith, ¹ M. A., PH. D., <i>Engl.</i>
James W. Nicholson, M. A., LL. D., <i>Math.</i>	Charles E. Coates, jr., PH. D., <i>Chem.</i>
William C. Stubbs, PH. D., <i>Agr.</i>	W. R. Dodson, B. A., B. S., <i>Bot.</i>
H. A. Morgan, B. S. A., <i>Zool. and Ent.</i>	Thomas W. Atkinson, B. S., C. E., <i>Mech. and Phys.</i>
E. L. Scott, M. A., <i>Ancient Lang.</i>	A. T. Prescott, M. A., <i>Hist. and Polit. Sci.</i>
B. W. Pegues, B. S., <i>Civil Engin.</i>	

¹ Absent on leave.

BOARD OF INSTRUCTION—continued.

Charles H. Stumberg, M.A., <i>Modern Lang.</i>	Alfred Best, B. S., <i>Instr. Chem.</i>
William H. Dalrymple, M. R. C. V. S., <i>Vet. Sci.</i>	T. H. Harris, <i>Instr. Subfreshman Dept.</i>
Julian Huguenin, ¹ Ph. D., <i>Engl.</i>	R. F. Rhodes, B. S., <i>Instr. Subfreshman Dept.</i>
E. A. Chavanne, C. E., <i>Mil. Sci. and Tactics.</i>	C. M. Roberts, B. A., <i>Instr. Subfreshman Dept.</i>
F. H. Burnette, <i>Hort.</i>	W. B. Robert, <i>Instr. Subfreshman Dept.</i>
R. L. Himes, <i>Prin. Subfreshman Dept.; Commercial Branches.</i>	H. L. Stoutz, <i>Asst. in Mech. Dept.</i>
C. H. Kretz, B. S., <i>Instr. Mech.</i>	L. A. Youngs, B. S., <i>Asst. in Mech. Dept.</i>

Southern University and Agricultural and Mechanical College, New Orleans.

COURSES OF STUDY.

The university is divided into the following departments: College, normal school, high school (college preparatory), grammar school, department of music, and industrial department. In the industrial department there is an agricultural school and a dairy school, the first having two and four year courses and the second a two year course.

BOARD OF INSTRUCTION.

H. A. Hill, <i>Pres.; Econ. and Mental Sci.</i>	A. T. Getz, <i>Physiol.</i>
S. E. McClendon, <i>Agr.</i>	S. A. Martinez, <i>Asst. in Engl.</i>
Millard Mithoff, <i>Mech.</i>	A. B. Kennedy, <i>Engl.</i>
L. M. Martinet, <i>Math.</i>	E. P. Barrell, <i>Chem. and Phys.</i>
G. S. Washington, <i>Printing.</i>	W. J. Nickerson, <i>Music.</i>
O. A. Joseph, <i>Phys. Geog.</i>	Chas. E. Roos, <i>Biol. and Dairying.</i>
William J. Bauduit, <i>Elementary Sci.</i>	E. E. Barrell, <i>Prin. Girls' Indus. Section.</i>

MAINE.**The University of Maine, Orono.**

COURSES OF STUDY.

The undergraduate courses of study leading to degrees are ten, each requiring four years. These are the classical course, the Latin scientific course, the scientific course, the chemical course, the agricultural course, the preparatory medical course, the pharmacy course, the civil engineering course, the mechanical engineering course, and the electrical engineering course. The classical course leads to the degree of B. A., the Latin scientific course to B. Ph., the other courses to B. S. The shorter courses, leading to a certificate, are as follows: The courses of one and two years, in agriculture, the course of two years, in pharmacy, and the farmers' training courses of six weeks. The course in the school of law is three years and leads to the degree of LL. B.

BOARD OF INSTRUCTION—COLLEGE OF AGRICULTURE.

Abram W. Harris, D. Sc., LL. D., <i>Pres.</i>	Fremont L. Russell, B. S., V. S., <i>Biol., Vet. Sci.</i>
Merritt C. Fernald, Ph. D., <i>Philos.</i>	Welton M. Munson, M. S., <i>Hort.</i>
Alfred B. Aubert, M. S., <i>Chem.</i>	Lucius J. Shepard, B. S., <i>Agr.</i>
Allen E. Rogers, M. A., <i>Civics.</i>	Horace M. Estabrooke, M. A., <i>Engl.</i>
James M. Bartlett, M. S., <i>Chem.</i>	Edwin C. Upton, B. S., <i>Engl.</i>
Lucius H. Merrill, B. S., <i>Agr. Chem.</i>	Percy L. Ricker, B. S., <i>Natural Hist.</i>
Gilman A. Drew, Ph. D., <i>Biol.</i>	James S. Stevens, Ph. D., <i>Phys.</i>
James N. Hart, C. E., <i>Math and Astron.</i>	

¹ Conducting English department during absence of Dr. Smith.

BOARD OF INSTRUCTION—continued.

Gilbert M. Gowell, M. S., <i>Animal Indus.</i>	Clifford D. Holley, B. S., <i>Chem.</i>
Charles D. Woods, B. S., <i>Agr.</i>	Edward R. Mansfield, B. S., <i>Chem.</i>
———, <i>Mil. Sci.</i>	Louis Siff, B. S., <i>Math.</i>
Orlando F. Lewis, PH. D., <i>Modern Lang.</i>	Roscoe M. Packard, M. A., <i>Math.</i>
Garnett Ryland, PH. D., <i>Chem.</i>	W. P. Beck, B. S., <i>Phys.</i>
Ralph K. Jones, B. S., <i>Libr.</i>	Wilfred H. Caswell, B. M. E., <i>Phys.</i>
Reginald R. Goodell, M. A., <i>Modern Lang.</i>	Frank H. Mitchell, B. S., <i>Chem.</i>
Ora W. Knight, M. S., <i>Chem.</i>	James A. Hayes, B. S., <i>Chem.</i>

MARYLAND.

Maryland Agricultural College, College Park.

COURSE OF STUDY.

The course of study requires four years and leads to the degrees of B. S., B. A., M. S., M. E., and A. M.

BOARD OF INSTRUCTION.

R. W. Silvester, <i>Pres.</i> ; <i>Math.</i>	F. B. Bomberger, B. S., <i>Engl. and Civics.</i>
J. C. Scantling, Major, U. S. A. (Retired), <i>Mil. Sci. and Tactics.</i>	Chas. S. Richardson, <i>Phys. Culture.</i>
W. T. L. Taliaferro, B. A., <i>Agr.</i>	H. T. Harrison, <i>Prin. Prep. Dept.</i>
H. B. McDonnell, M. D., B. S., <i>Chem.</i>	J. R. Laughlin, B. S., <i>Asst. in Chem.</i>
Jas. S. Robinson, <i>Hort.</i>	J. H. Mitchell, M. E., <i>Asst. in Engin.</i>
C. O. Townsend, PH. D., <i>Path. and Bot.</i>	H. P. Gould, M. S., <i>Asst. in Hort. and Act- ing Ent.</i>
Henry Lanahan, B. A., <i>Civics and Civil Engin.</i>	M. N. Straughn, B. S., <i>Asst. in Chem.</i>
C. F. Doane, B. S., <i>Dairying.</i>	J. B. Robb, B. S., <i>Asst. in Chem.</i>
Thos. H. Spence, M. A., <i>Lang.</i>	T. R. Gough, B. S., <i>Asst. in Chem.</i>
H. Gwinner, M. M. E., <i>Mech.</i>	R. H. Pond, M. S., <i>Asst. in Bot. and Path.</i>
S. S. Buckley, M. S., D. V. S., <i>Vet. Sci.</i>	Geo. S. Edelen, B. S., <i>Asst. in Chem.</i>
Jos. R. Owens, M. D., <i>Registrar and Treas.</i>	C. G. Church, B. S., <i>Asst. in Chem.</i>

MASSACHUSETTS.

Massachusetts Agricultural College, Amherst.

COURSE OF STUDY.

The course of study requires four years and leads to the degree of B. S.

BOARD OF INSTRUCTION.

Henry H. Goodell, LL. D., <i>Pres.</i> ; <i>Hist.</i>	Henry T. Fernald, PH. D., <i>Ent.</i>
Levi Stockbridge, (<i>Honorary</i>) <i>Agr.</i>	Capt. John Anderson, <i>Mil. Sci. and Tactics.</i>
Chas. A. Goessmann, PH. D., LL. D., <i>Chem.</i>	Herman Babson, M. A., <i>Asst. in Engl.</i>
Samuel T. Maynard, B. S., <i>Hort.</i>	Samuel F. Howard, B. S., <i>Asst. in Chem.</i>
Chas. Wellington, PH. D., (<i>Assoc.</i>) <i>Chem.</i>	Fred S. Cooley, B. S., <i>Asst. in Agr.</i>
Charles H. Fernald, PH. D., <i>Zool.</i>	Richard S. Lull, M. S., <i>Asst. in Zool.</i>
Rev. Charles S. Walker, PH. D., <i>Mental and Polit. Sci.</i>	Ralph E. Smith, B. S., <i>Asst. in Bot. and Instr. in German.</i>
William P. Brooks, PH. D., <i>Agr.</i>	Philip B. Hasbrouck, B. S., <i>Asst. in Math.</i>
George F. Mills, M. A., <i>Engl. and Latin.</i>	George F. Parmenter, B. S., <i>Asst. in Chem.</i>
James B. Paige, D. V. S., <i>Vet. Sci.</i>	George F. Babb, B. A., <i>Instr. in French.</i>
George E. Stone, PH. D., <i>Bot.</i>	Robert W. Lyman, LL. B., <i>Lecturer on Farm Law.</i>
John E. Ostrander, C. E., <i>Engin. and Math.</i>	

MICHIGAN.

Michigan Agricultural College, *Agricultural College.*

COURSES OF STUDY.

The courses of study are three, each requiring four years for completion and leading to the degree of B.S.: The agricultural course, the mechanical course, and the women's course. A post-graduate course is also provided.

BOARD OF INSTRUCTION.

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|--|---|
| J. L. Snyder, M. A., PH. D., <i>Pres.</i> | R. H. Pettit, B. S., <i>Instr. Zool. and Ent. of Expt. Sta.</i> |
| R. C. Kedzie, M. A., M. D., D. Sc., <i>Chem.; Curator Chem. Lab.</i> | Chas. O. Bemies, B. A., <i>Phys. Culture.</i> |
| William J. Beal, M. S., PH. D., <i>Bot. and For.; Curator Bot. Museum.</i> | Jos. A. Jeffrey, B. S., (<i>Asst.</i>) <i>Agr.</i> |
| Levi R. Taft, M. S., <i>Hort. and Landscape Gard.; Supt. Hort. Dept.</i> | U. P. Hedrick, M. S., (<i>Asst.</i>) <i>Hort.</i> |
| Howard Edwards, M. A., LL. D., <i>Engl. Lit. and Modern Lang.</i> | Hugo Diemer, B. S., (<i>Asst.</i>) <i>Mech. Engin.</i> |
| Herman K. Vedder, C. E., <i>Math.</i> | E. Sylvester King, B. S., <i>Instr. Engl.</i> |
| Arthur C. Bird, B. S., <i>Sec.</i> | B. O. Longyear, <i>Instr. Bot.</i> |
| C. D. Smith, M. S., <i>Supt. of Farmers' Institutes and Dean of Special Courses.</i> | William O. Beal, B. A., <i>Instr. Math.</i> |
| C. L. Weil, B. S., <i>Mech. Engin.</i> | J. J. Ferguson, B. S., <i>Instr. Dairying.</i> |
| W. B. Barrows, B. S., <i>Zool. and Physiol.; Curator General Museum.</i> | C. E. Marshall, PH. B., (<i>Asst.</i>) <i>Bact.</i> |
| Frank S. Kedzie, M. S., (<i>Adjunct</i>) <i>Chem.</i> | Herman Reynolds, B. S., <i>Instr. Mech. Engin.</i> |
| George A. Waterman, M. S., V. S., <i>Vet. Sci.</i> | Mrs. Jennie K. L. Haner, <i>Instr. Sewing.</i> |
| H. W. Mumford, B. S., <i>Agr.</i> | Belle C. Crowe, <i>Instr. Domestic Sci.</i> |
| Maj. Chas. A. Vernou, <i>Commandant of Cadets.</i> | Mrs. Maud Marshall, <i>Instr. Music.</i> |
| William S. Holdsworth, M. S., (<i>Asst.</i>) <i>Drawing.</i> | Thomas Gunson, <i>Instr. Floriculture.</i> |
| Martin D. Atkins, M. A., (<i>Asst.</i>) <i>Phys.</i> | Leslie L. Lock, <i>Instr. Math.</i> |
| C. F. Wheeler, B. S., (<i>Asst.</i>) <i>Bot.</i> | Alfred Parrott, <i>Instr. Math.</i> |
| W. O. Hendrick, M. S., (<i>Asst.</i>) <i>Hist. and Polit. Econ.</i> | A. H. Taylor, <i>Instr. Phys.</i> |
| Maud Ryland Keller, M. A., <i>Dean of Women's Dept.</i> | Bertha Wellman, B. S., B. PD., <i>Instr. Engl.</i> |
| Georgiana Blunt, PH. M., (<i>Asst.</i>) <i>Engl. Lit. and Modern Lang.</i> | Carrie A. Lyford, <i>Instr. Domestic Sci.</i> |
| Warren Babcock, jr., B. S., (<i>Asst.</i>) <i>Math.</i> | Sarah B. S. Avery, <i>Instr. Phys. Culture.</i> |
| Mrs. Linda E. Landon, <i>Libr.</i> | W. T. Shaw, <i>Instr. Ent.</i> |
| | S. F. Edwards, <i>Instr. Bact.</i> |
| | F. C. Kenney, <i>Asst. Sec.</i> |
| | E. R. Blair, <i>Foreman Farm.</i> |
| | W. S. Leonard, <i>Foreman Machine Shops.</i> |
| | Chase Newman, <i>Instr. Mech. Drawing and Woodshop.</i> |
| | W. B. Bradford, <i>Foreman Woodshop.</i> |
| | C. E. Baker, <i>Foreman Foundry.</i> |
| | B. A. Faunce, <i>Clerk to Pres.</i> |

MINNESOTA.

College of Agriculture of the University of Minnesota, *St. Anthony Park, St. Paul.*

COURSE OF STUDY.

The college course requires four years for completion and leads to the degree of B. Agr. Instruction in a number of subjects included in the course in agriculture is given by the faculty of the college in science, literature, and the arts. There is also a secondary school of agriculture, with a course requiring three years of six months each for completion, and a dairy course of four weeks. To secure a dairy certificate

the student must have two seasons' actual practice in a creamery or cheese factory, one of which must follow his work at the dairy school.

BOARD OF INSTRUCTION.

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|--|---|
| Cyrus Northrop, LL. D., <i>Pres.</i> | J. M. Drew, <i>Blacksmithing and Poultry.</i> |
| William M. Liggett, <i>Dean.</i> | William Boss, <i>Carpentry and Power Machinery.</i> |
| Frederick D. Tucker, B. A., <i>Prin. of School; Math.</i> | E. W. Mahood, M. A., <i>Arith. and Athletics.</i> |
| Samuel B. Green, B. S., <i>Hort. and For.</i> | Junia L. Shepperd, M. A., <i>Cooking and Laundering.</i> |
| Otto Lugger, Ph. D., <i>Zool. and Ent.</i> | Margaret Blair, <i>Sewing.</i> |
| Charles R. Aldrich, <i>Carpentry, Drawing, and Farm Buildings.</i> | Virginia C. Meredith, <i>Preceptress; Household Art and Social Culture.</i> |
| William Robertson, B. S., <i>Phys. and Bot.</i> | Chas. F. Keyes, B. A., <i>Geog. and Hist.; Registrar.</i> |
| J. A. Vye, <i>Penmanship and Accounts.</i> | Sophie M. Pendergast, B. L., <i>Lang.</i> |
| Harry Snyder, B. S., <i>Chem.</i> | Grace B. Whitridge, <i>Phys. Culture.</i> |
| T. L. Haecker, <i>Dairy Husb.</i> | Arthur C. Koerner, <i>Music.</i> |
| M. H. Reynolds, M. D., V. M., <i>Physiol. and Vet. Sci.</i> | B. D. White, <i>Instr. Butter Making.</i> |
| Willet M. Hays, M. S., <i>Agr.</i> | A. J. Glover, <i>Instr. Cheese Making.</i> |
| Thomas Shaw, <i>Animal Indus.</i> | H. T. Sondergaard, <i>Asst. in Creamery.</i> |
| Andrew Boss, <i>Dressing and Curing Meats; Farm Machinery.</i> | Saml. Haugdahl, <i>Asst. in Creamery.</i> |
| | E. W. Major, <i>Instr. Dairy Lab.</i> |

MISSISSIPPI.

Mississippi Agricultural and Mechanical College, Agricultural College.

COURSE OF STUDY.

The course of study requires four years for completion and leads to the degree of B. S. Post-graduate courses and a preparatory course are also provided.

BOARD OF INSTRUCTION.

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| J. C. Hardy, M. A., <i>Pres.</i> | W. H. Magruder, M. A., <i>Engl.</i> |
| I. D. Sessums, B. S., <i>Commandant, and (Acting) Mil. Sci. and Tactics.</i> | F. J. Weddell, B. S., (<i>Asst.</i>) <i>Engl.</i> |
| W. C. Welborn, M. S., <i>Agr.</i> | B. M. Walker, M. S., <i>Math.</i> |
| A. B. McKay, B. S., <i>Hort.</i> | J. W. Fox, M. S., (<i>Assoc.</i>) <i>Math.</i> |
| C. T. Ames, B. S., (<i>Asst.</i>) <i>Hort.</i> | A. M. Maxwell, <i>Instr. Bookkeeping.</i> |
| A. J. Wiechardt, M. M. E., <i>Mech. Arts.</i> | J. M. White, M. S., <i>Hist. and Civics; Libr.</i> |
| J. S. Wier, B. S., (<i>Asst.</i>) <i>Mech. Arts.</i> | W. L. Hutchinson, M. S., <i>Dir. Expt. Sta.</i> |
| C. E. Ard, B. S., (<i>Adjunct</i>) <i>Mech. Arts.</i> | J. C. Herbert, M. S., <i>Prin. Prep. Dept.</i> |
| J. E. McKell, B. S., (<i>Asst.</i>) <i>Mech. Arts.</i> | J. S. Wallace, B. S., (<i>Asst.</i>) <i>Prep. Dept.</i> |
| G. W. Herrick, B. S., <i>Biol.</i> | J. L. Stinson, B. S., (<i>Asst.</i>) <i>Prep. Dept.</i> |
| J. C. Robert, D. V. M., <i>Vet. Sci.</i> | T. E. Royals, B. S., (<i>Asst.</i>) <i>Prep. Dept.</i> |
| W. F. Hand, M. S., <i>Chem.</i> | R. C. King, B. S., <i>Sec. and Purchasing Agt.</i> |
| I. D. Sessums, (<i>Asst.</i>) <i>Chem.</i> | A. F. Rush, jr., <i>Asst. Sec.</i> |
| J. S. Carroll, M. S., (<i>Asst.</i>) <i>Chem.</i> | J. W. Cassell, B. S., <i>Sten.</i> |
| E. B. Ferris, (<i>Asst.</i>) <i>Chem.</i> | W. H. Barr, M. D., <i>Surgeon.</i> |
| J. A. Turnipseed, <i>Sten. Chem. Dept.</i> | Jas. Geraghty, <i>Nurse.</i> |
| | W. J. Gallaway, <i>Steward and Janitor.</i> |
| | J. F. Montgomery, <i>Foreman of Farm.</i> |

Alcorn Agricultural and Mechanical College, Westside.

COURSES OF STUDY.

The courses of study are two: The industrial course of three years and the scientific course, requiring four years for completion and leading to the degree of B. S.

BOARD OF INSTRUCTION.

W. H. Lanier, B. A., <i>Pres.</i>	A. J. Wade, <i>Instr. Shoemaking.</i>
P. A. Wadlow, M. S., <i>Math.</i>	Thomas B. Helm, <i>Instr. Blacksmithing.</i>
J. M. May, M. S., <i>General and Anal. Chem., Phys., and Biol.</i>	E. R. Correll, B. S., <i>Instr. Carpentering.</i>
E. H. Triplett, D. D., <i>General Hist. and Moral Philos.</i>	L. J. Rowan, B. S., <i>Asst. in Engl.</i>
J. M. Hicks, B. S., <i>Agr. and Supt. Farm.</i>	Geo. H. Oliver, <i>Tutor.</i>
P. W. Howard, M. A., (<i>Asst.</i>) <i>Math.</i>	W. R. Wiley, <i>Tutor.</i>
Daniel W. Gary, B. S., <i>Engl.</i>	E. W. Ford, <i>Tutor.</i>
	C. A. Gordon, <i>Sec. and Treas.</i>
	Rev. A. H. Meres, <i>Chaplain.</i>
	William M. Douglass, <i>Instr. Painting.</i>

MISSOURI.

College of Agriculture and Mechanic Arts of the University of Missouri,
Columbia.

COURSES OF STUDY.

In the School of Agriculture the four-year course leads to the degree of B. Agr. The degree of B. S. in Agr. is given for one additional year. There are also three short courses: A two-year elementary course; a school of agriculture of three months, and a school of horticulture of three months. In the School of Mechanic Arts the four-year course leads to a certificate. In the School of Engineering, four-year courses lead to the degrees of B. S. in civil engineering, in electrical engineering, in mechanical engineering, and in sanitary engineering, respectively. The degrees of C. E., E. E., and M. E. are also given for graduate work.

The School of Mines and Metallurgy at Rolla, a department of the College of Agriculture and Mechanic Arts, offers a four-years' college course leading to the degree of B. S.; a four-years' course leading to the degree of B. S. in civil engineering; a four-years' course leading to the degree of B. S. in mining engineering, and a four-years' course leading to the degree of B. S. in chemistry and metallurgy. It also offers for graduate work the degrees of master of science, mining engineer, civil engineer, and metallurgical engineer.

BOARD OF INSTRUCTION AT COLUMBIA.

R. H. Jesse, LL. D., <i>Pres.</i>	H. M. Belden, B. A., Ph. D., <i>Asst. in Engl.</i>
H. J. Waters, B. S. A., <i>Dean.</i>	R. Weeks, M. A., Ph. D., <i>Romance Lang.</i>
P. Schweitzer, Ph. D., LL. D., <i>Agr. Chem.</i>	H. B. Shaw, B. C. E., <i>Elect. Engin.</i>
F. B. Mumford, ¹ M. S., <i>Agr.</i>	———, <i>Archit.</i>
H. R. Smith, M. S., <i>Agr.</i>	P. Kauffman, M. D., <i>Bact. and Path.</i>
J. C. Whitten, B. S., <i>Hort.</i>	M. L. Lipscomb, M. A., <i>Phys.</i>
E. A. Allen, Litt. D., <i>Engl.</i>	W. H. Turner, B. S., <i>Instr. Mil. Sci.</i>
George Lefevre, B. S., Ph. D., <i>Biol.</i>	C. F. Marbut, B. S., M. A., <i>Geol. and Min.</i>
Jane A. L. Zabriskie, <i>Household Econ.</i>	C. W. Marx, B. E., <i>Mech. Engin. and Supt. of Shops.</i>
T. J. Rodhouse, B. S., <i>Instr. Drawing.</i>	W. G. Brown, B. S., Ph. D., <i>Chem.</i>
S. C. Shipley, B. S., <i>Instr. Mech. Arts.</i>	Sidney Calvert, B. S., M. A., <i>Asst. in Chem.</i>
M. Estelle Porter, B. L., <i>Instr. Commercial Studies.</i>	R. B. Moore, B. S., <i>Instr. Chem.</i>
J. W. Connaway, M. D. C., M. D., <i>Vet. Sci.</i>	J. N. Fellows, M. A., M. S., <i>Math.</i>
I. Loeb, M. A., <i>Polit. Econ.</i>	H. C. Penn, M. A., <i>Asst. in Engl.</i>
J. M. Stedman, B. S., <i>Ent.</i>	W. W. Griffith, B. S., <i>Instr. Phys.</i>
F. P. Spalding, M. S., <i>Civil Engin.</i>	C. Thom, M. A., Ph. D., <i>Instr. Bot.</i>
B. F. Hoffman, M. L., <i>German Lang.</i>	L. M. Defoe, B. A., <i>Asst. in Math.</i>

¹ On leave.

BOARD OF INSTRUCTION AT ROLLA.

R. H. Jesse, LL. D., <i>Pres.</i>	E. T. Allen, Ph. D., <i>Chem.</i>
G. E. Ladd, Ph. D., <i>Dir. and Prof. Geol. and Mining.</i>	G. R. Dean, C. E., <i>Math.</i>
E. G. Harris, C. E., <i>Eng.</i>	F. W. Draper, E. M., <i>Metallurgy.</i>
A. H. Timmerman, <i>Phys.</i>	J. B. Scott, <i>Instr. Engl.</i>
	A. D. Terrell, <i>Instr. Drawing.</i>
Geo. C. Clark, <i>Asst. Chem.</i>	

Lincoln Institute, Jefferson City.

COURSES OF STUDY.

This institution has the following departments: College (four-year course leading to degree of B. A.), college preparatory, normal (two and four year courses), normal preparatory, and industrial.

BOARD OF INSTRUCTION.

John H. Jackson, B. A., M. A., <i>Pres.; Ethics, Psych., and Polit. Econ.</i>	Carrie M. Carney, <i>Instr. Vocal and Instrumental Music.</i>
Benjamin F. Allen, B. A., M. A., <i>V. Pres.; Pedag., Hist., and Modern Lang.</i>	Kate Jordan, <i>Instr. Drawing and Asst. in Music.</i>
J. Wesley Damel, B. A., M. Ph., <i>Nat. Sci.</i>	Mary E. Grimshaw, <i>Instr. Sewing.</i>
J. H. Garnett, B. A., M. A., <i>Latin and Greek.</i>	Mrs. Libbie C. Anthony, <i>Matron in Dormitory for Young Women and Instr. in Laundry.</i>
Archie L. Reynolds, B. A., <i>Math.</i>	
John H. Bredenmann, <i>Supt. Shop.</i>	Mrs. Sarah H. Dupee, <i>Matron in Dormitory for Young Men and Instr. in Cooking.</i>
Wm. Menteer, <i>First Asst. in Indus. Dept.</i>	
Robert S. Spann, <i>Second Asst. in Indus. Dept.</i>	

MONTANA.**The Montana College of Agriculture and Mechanic Arts, Bozeman.**

COURSES OF STUDY.

The following courses are given: Four-year courses in civil engineering, mechanical engineering, electrical engineering, general science, chemistry, agriculture, and domestic science, leading to degrees, and art, music, business, and preparatory courses.

BOARD OF INSTRUCTION.

James Reid, B. A., <i>Pres.; Mental, Moral, and Polit. Sci., and Astron.</i>	J. W. Blankenship, Ph. D., <i>Bot. and Bact.</i>
Frank W. Traphagen, Ph. D., F. C. S., <i>Phys., Chem., and Geol.</i>	S. Fortier, M. E., <i>Irrig. and Civil Engin.</i>
W. H. Williams, B. E. E., <i>Mech. and Elect. Engin.</i>	Edmund B. McCormick, B. S., <i>Asst. in Mech. Engin. and Shops.</i>
R. S. Shaw, B. S. A., <i>Agr.</i>	W. M. Cobleigh, M. E., <i>Instr. in Phys.</i>
R. A. Cooley, B. S., <i>Biol.</i>	Miss May Travis, B. A., <i>Math.</i>
W. F. Brewer, M. A., <i>Latin and Engl.</i>	J. H. Gill, M. E., <i>Instr. in Mech. Pract.</i>
Miss Helen Brewer, B. A., <i>Instr. Latin and Hist.</i>	E. C. Woodruff, Ph. D., <i>Instr. in Chem.</i>
Mrs. F. E. Marshall, <i>Art.</i>	Miss M. A. Cantwell, <i>Prin. Prep. Dept.</i>
Miss Lilla A. Harkins, M. S., <i>Domestic Sci. and Art.</i>	H. G. Phelps, <i>Prin. Business Dept.</i>
Aaron H. Currier, M. A., <i>French and German.</i>	Miss Emma Stockinger, <i>Asst. in Sten. and Typewriting.</i>
	Mrs. Mabel K. Hall, Ph. B., <i>Instr. Prep. Dept.</i>
	Miss Kate P. Calvin, <i>Piano.</i>

NEBRASKA.

The Industrial College of the University of Nebraska, *Lincoln*

COURSES OF STUDY.

The groups of study are as follows, each ordinarily requiring four years for completion and leading to the degree of B. Sc.: General scientific group; general agricultural group; special groups—agricultural and chemistry, botany and agriculture, botany and zoology, chemistry and physics, horticulture and botany, mathematics and physics, zoology and philosophy; and technical groups—technical agriculture, civil engineering, municipal engineering, electrical engineering, steam engineering, and mechanical engineering. One and three year courses in elementary agriculture and a course in dairying are also provided in the school of agriculture.

BOARD OF INSTRUCTION.

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| E. Benjamin Andrews, LL. D., <i>Chancellor.</i> | Rollins Adams Emerson, B. Sc., (<i>Asst.</i>) <i>Hort.</i> |
| Charles Edwin Bessey, LL. D., <i>Dean of the Indus. College; Bot.</i> | Rosa Bouton, M. A., (<i>Adjunct</i>) <i>Chem.</i> |
| Ellery Williams Davis, Ph. D., <i>Math.</i> | Albert Luther Candy, Ph. D., (<i>Adjunct</i>) <i>Math.</i> |
| James T. Lees, Ph. D., <i>Examining Dean; Greek Lang. and Lit.</i> | George Richard Chatburn, M. A., (<i>Adjunct</i>) <i>Math. and Civil Engin.</i> |
| Hudson H. Nicholson, M. A., <i>Chem. and Dir. of Chem. Lab.</i> | Burton Evans Moore, M. A., (<i>Adjunct</i>) <i>Phys.</i> |
| Lucius A. Sherman, Ph. D., <i>Engl. Lang. and Lit.</i> | Prosser Hall Frye, B. A., (<i>Adjunct</i>) <i>Eng. Lang.</i> |
| Augustus Hjalmar Edgren, Ph. D., <i>Linguistic Sci. and Sanskrit; Acting Head of Dept. of Romance Lang.</i> | Robert Henry Wolcott, M. D., M. A., (<i>Adjunct</i>) <i>Zool.</i> |
| De Witt B. Brace, Ph. D., <i>Phys.</i> | Clarence A. Skinner, Ph. D., (<i>Adjunct</i>) <i>Phys.</i> |
| Howard Walter Caldwell, M. A., <i>American Hist. and Jurisprudence.</i> | Paul H. Grumann, M. A., (<i>Adjunct</i>) <i>Germanic Lang.</i> |
| Erwin Hinckley Barbour, Ph. D., <i>Geol. and Acting State Geol.; Curator of State Museum.</i> | Anne Louise Barr, <i>Instr. Phys. Training and Dir. of Women's Gymnasium.</i> |
| Lawrence Bruner, B. Sc., <i>Ent., Ornithology and Taxidermy.</i> | George Andrew Loveland, B. L., <i>Instr. Astron. and Met.</i> |
| Goodwin Deloss Swezey, M. A., <i>Astron. and Met.</i> | Frederic Edward Clements, Ph. D., <i>Instr. Bot.</i> |
| Henry Baldwin Ward, Ph. D., <i>Zool.</i> | George H. Morse, B. E. E., <i>Instr. Elect. Engin. and in Charge of Mech. Drawing and Mach. Design.</i> |
| W. G. Langworthy Taylor, LL. B., <i>Polit. and Econ. Sci.</i> | Robert Moritz, M. Ph., <i>Instr. Math.</i> |
| Oscar V. P. Stout, C. E., <i>Civil Engin.</i> | Roscoe Pound, Ph. D., <i>Instr. Jurisprudence.</i> |
| Charles Russ Richards, M. E., M. M. E., <i>Mech. Engin. and Pract. Mech.</i> | Schuyler William Miller, M. A., <i>Instr. Eng. Lang.</i> |
| Morgan Brooks, M. E., <i>Elect. Engin.</i> | Belva M. Herron, B. Sc., <i>Instr. Polit. and Econ. Sci.</i> |
| T. Lyttleton Lyon, B. S. Agr., <i>Agr. (State Farm).</i> | Thaddeus Lincoln Bolton, Ph. D., <i>Instr. Philos.</i> |
| Edgar Albert Burnett, B. Sc., <i>Animal Husband.</i> | Mary Louise Fossler, M. A., <i>Instr. Chem.</i> |
| Albert Eugene Davisson, B. A., <i>Agr. Education.</i> | Carl Christian Engberg, Ph. D., <i>Instr. Math.</i> |
| Thomas Morey Hodgman, M. A., (<i>Assoc.</i>) <i>Math.</i> | |

BOARD OF INSTRUCTION—continued.

Robert Silver Hiltner, M. A., <i>Instr. Chem.</i>	Willard Ward Votaw, <i>Asst. in Pract. Mech.</i>
Allen LaRue Brown, B. A., <i>Instr. Mil. Tactics.</i>	Edith Schwartz Clements, B. A., <i>Fellow in German.</i>
J. E. Almy, PH. D., <i>Instr. Phys.</i>	H. S. Evans, B. Sc., <i>Fellow in Elect. Engin.</i>
May Chamberlin, M. A., <i>Instr. Germanic Lang.</i>	John L. Gerig, B. A., <i>Fellow in Romance Lang.</i>
Nettie E. Philbrick, B. Sc., <i>Asst. Instr. Domestic Sci.</i>	John L. Kind, B. A., <i>Fellow in Germanic Lang.</i>
Albert Buell Lewis, B. A., <i>Asst. Instr. Zool.</i>	William Walter Hastings, B. A., M. A., PH. D., (<i>Adjunct</i>) <i>Physiol. and Hygiene; Dir. Phys. Training.</i>
Cassius Asa Fisher, B. A., <i>Fellow in Geol.</i>	James Ingersoll Wyer, B. L. S., <i>Libr. and Asst. in Bibliography.</i>
Archibald Louis Haecker, B. Sc., <i>Asst. in Agr. (State Farm).</i>	

NEVADA.

School of Agriculture of the Nevada State University, Reno.

COURSES OF STUDY.

The regular course requires four years for completion and leads to the degree of B. S. A short course in agriculture is also provided, requiring five months of each year for four years and leading to no degree. Short courses in agriculture, dairying, domestic science, and assaying are given during the months of January and February of each year, for the benefit of ranchers and prospectors.

BOARD OF INSTRUCTION.

Joseph E. Stubbs, M. A., D. D., <i>Pres.</i>	James E. Church, jr., M. A., <i>Latin Lang. and Lit.</i>
Hannah K. Clapp, M. A., <i>Libr.</i>	P. Beveridge Kennedy, PH. D., <i>Bot. and Hort.</i>
George J. Young, B. S., <i>Metallurgy and Assaying.</i>	Mrs. Mary W. Emery, M. A., <i>Pedag.</i>
George D. Louderback, PH. D., <i>Geol., Min., and Phys.</i>	Robert Lewers, <i>Polit. Econ. and Logic.</i>
Ransom H. McDowell, B. S., <i>Agr. and Animal Husb.</i>	James E. Brett, Capt., U. S. A. (Retired), <i>Mil. Sci. and Tactics.</i>
Lysander W. Cushman, PH. D., <i>Engl. Lang. and Lit.</i>	Samuel B. Doten, B. A., <i>Ent.</i>
Richard Brown, <i>Supt. Mech. Dept.</i>	Peter Frandsen, M. A., <i>Zool. and Bact.</i>
Henry Thurtell, B. S., <i>Mech. and Math.</i>	Laura de Laguna, M. A., <i>Modern Lang.</i>
	Anna H. Martin, M. A., <i>Hist.</i>
	George F. Blessing, B. S., <i>Mech. Engin.</i>
	L. F. J. Wrinkle, <i>Mining Engin.</i>

NEW HAMPSHIRE.

New Hampshire College of Agriculture and the Mechanic Arts, Durham.

COURSES OF STUDY.

There are five courses of study, each requiring four years for completion and leading to the degree of B. S.: Course in agriculture, course in chemistry, course in mechanical engineering, course in electrical engineering, and general course (open to women). Also a two years' course in agriculture not leading to any collegiate degree, a one year's preparatory course, a ten weeks' course in agriculture, and a ten weeks' course in dairying.

BOARD OF INSTRUCTION.

Charles S. Murkland, M. A., PH. D., D. D., <i>Pres.; Engl. Lang. and Lit.</i>	Arthur F. Nesbit, M. A., B. S., (<i>Assoc.</i>) <i>Phys. and Elect. Engin.</i>
Charles H. Pettee, M. A., C. E., <i>Dean</i> ; <i>Math. and Civil Engin.</i>	Herbert H. Lamson, M. D., (<i>Assoc.</i>) <i>Bot.</i>
Clarence W. Scott, M. A., <i>Hist. and Polit.</i> <i>Econ.</i>	Joseph H. Hawes, (<i>Assoc.</i>) <i>Drawing.</i>
Fred W. Morse, M. S., <i>Organic Chem.</i>	Richard Whorisky, jr., B. A., (<i>Asst.</i>) <i>Modern Lang.</i>
Charles L. Parsons, B. S., <i>General and</i> <i>Anal. Chem.</i>	W. W. Braman, B. S., (<i>Asst.</i>) <i>Chem. and</i> <i>Min.</i>
Clarence M. Weed, D. Sc., <i>Zool. and Ent.</i>	Frederick S. Johnston, B. S., (<i>Asst.</i>) <i>Agr.</i>
Frank William Rane, B. Agr., M. S., <i>Hort.</i> <i>and For.</i>	John N. Brown, <i>Instr. Machine Work.</i>
Charles W. Burkett, M. S., PH. D., <i>Agr.</i>	Irving A. Colby, B. S., <i>Instr. Woodwork.</i>
Carleton A. Read, B. S., <i>Mech. Engin.</i>	Ivan C. Weld, <i>Instr. Dairying.</i>
Victor E. Stottler, Capt., U. S. A. (<i>Ret-</i> <i>ired</i>), <i>Mil. Sci. and Tactics.</i>	Clarence W. Waid, B. S., <i>Asst. in Hort.</i>
	Harry P. Richardson, B. S., <i>Asst. in Agr.</i>
	Edward H. Hancock, B. S., <i>Engin. and</i> <i>Curator of Buildings.</i>
	Frederick C. Keith, <i>Purchasing Agt.</i>
	Marion Imes, B. S., <i>Asst. Vet.</i>

NEW JERSEY.

Rutgers Scientific School, the New Jersey State College for the Benefit of Agriculture and the Mechanic Arts, *New Brunswick.*

COURSES OF STUDY.

There are five distinct courses of study: A course in agriculture, a course in civil engineering and mechanics, a course in chemistry, a course in electricity, and a course in biology. Each course requires four years for completion and leads to the degree of B. S.

BOARD OF INSTRUCTION.

Austin Scott, PH. D., LL. D., <i>Pres.; Hist.</i> <i>and Polit. Sci.</i>	Albert Huntington Chester, E. M., PH. D., D. Sc., <i>Chem. and Min.; Curator Mu-</i> <i>seum.</i>
Rev. Jacob Cooper, D. D., D. C. L., LL. D., <i>Logic and Mental Philos.</i>	John Charles Van Dyke, L. H. D., <i>Hist.</i> <i>Art.</i>
Rev. Carl Meyer, D. D., <i>Modern Lang. and</i> <i>Lit.</i>	Robert Woodworth Prentiss, M. S., <i>Math.</i> <i>and Astron.; Sec. of Faculty.</i>
Francis Cuyler Van Dyck, PH. D., <i>Phys.</i> <i>and Expt. Mech.</i>	Eliot Robertson Payson, PH. D., <i>Hist. and</i> <i>Art Teaching.</i>
Edward Albert Bowser, C. E., LL. D., <i>Math. and Engin.</i>	Edward Luther Stevenson, PH. D., <i>Hist.</i>
Rev. Charles Edward Hart, D. D., <i>Ethics,</i> <i>Evidences of Christianity, and the Engl.</i> <i>Bible.</i>	Quincy O'M. Gillmore, Capt., U. S. A. (Retired), <i>Mil. Sci. and Tactics.</i>
Louis Bevier, jr., PH. D., <i>Greek Lang. and</i> <i>Lit.; Sec. Extension Dept.</i>	Rev. Henry Du Bois Mulford, <i>Engl. Lang.</i> <i>and Lit.</i>
Alfred Alexander Tittsworth, M. S., C. E., <i>Graphics and Math.</i>	William Hamilton Kirk, PH. D., <i>Latin</i> <i>Lang. and Lit.</i>
Julius Nelson, PH. D., <i>Biol.</i>	Irving Strong Upson, M. A., <i>Libr. and</i> <i>Registrar.</i>
Byron David Halsted, D. Sc., <i>Bot. and</i> <i>Hort.</i>	Clarence Livingston Speyers, PH. B., (<i>Assoc.</i>) <i>Chem.</i>
John Bernhard Smith, D. Sc., <i>Ent.</i>	William Shields Myers, M. S., F. C. S., (<i>Assoc.</i>) <i>Chem.</i>
Edward Burnett Voorhees, D. Sc., <i>Agr.</i>	

BOARD OF INSTRUCTION—continued.

Edward Livingston Barbour, B. O., <i>Instr. Rhet. and Elocution.</i>	William Van Bergen Van Dyck, M. S., E. E., <i>Instr. Elect. Sci.</i>
Edwin Bell Davis, B. L., <i>Instr. Modern Lang.</i>	Richard Morris, B. S., <i>Instr. Math. and Graphics.</i>
Fred Herbert Dodge, B. A., <i>Instr. Phys. Training; Dir. Gymnasium.</i>	Calvin Smith Brown, D. Sc., Ph. D., <i>Instr. Mod. Lang.</i>

NEW MEXICO.

New Mexico College of Agriculture and Mechanic Arts, Mesilla Park.

COURSES OF STUDY.

The courses of study are four: A course in agriculture, a course in civil engineering, a course in mechanical engineering, and a general or scientific course.

BOARD OF INSTRUCTION.

Frederic W. Sanders, Ph. D., <i>Pres.; Polit. and Econ. Sci.</i>	Frank E. Lester, <i>Registrar; Prin. Sten. Dept.</i>
Clarence T. Hagerty, M. S., <i>Math. and Astron.</i>	R. Fred Hare, M. S., (<i>Asst.</i>) <i>Chem.</i>
Arthur Goss, M. S., A. C., <i>Chem.</i>	Fabian Garcia, B. S., (<i>Asst.</i>) <i>Hort.</i>
Frank W. Brady, M. E., <i>Mech. Engin.</i>	Charles Mills, <i>Instr. College Shops.</i>
Hiram Hadley, M. A., <i>Hist. and Philos.</i>	Laura Frenger, <i>Instr. Music.</i>
Elmer O. Wooton, M. A., <i>Biol., Geol., and Phys.</i>	William Alexander Sutherland, B. S., <i>Instr. Spanish and Latin.</i>
Frederick F. Barker, LL. B., <i>Engl. and Latin.</i>	Joseph F. Bennett, jr., M. S., <i>Asst. in Bot., Geol., and Phys.</i>
J. D. Tinsley, B. S., <i>Soil Phys.</i>	Geraldine Combs, <i>Asst. in Prep. Dept.</i>
Alice Horning, B. S., <i>Dean of Women; Domestic Econ.</i>	Helen Mar Macgregor, <i>Asst. in Sten. and Typewriting; Sten.</i>
John J. Vernon, M. S. Agr., <i>Agr. and Hort.</i>	Florence G. Thornton, <i>Asst. in Prep. Dept.</i>
W. M. Reed, C. E., <i>Civil and Irrig. Engin.</i>	A. B. Sage, B. S., <i>Asst. in Engin. Dept.</i>
Ralph Roy Larkin, B. S., <i>Prin. Prep. Dept.</i>	Charlotte A. Baker, <i>Libr. and Asst. in Engl.</i>
	Lavinia L. Brown, <i>Asst. in Prep. Dept.</i>

NEW YORK.

Cornell University, Ithaca.

COURSES OF STUDY.

Among the numerous courses of study offered by the university is one which leads to the degree of bachelor of the science of agriculture. This course requires four years for completion, and during the last two years the student selects most of his studies in work given by the departments of agriculture and horticulture, and in the courses in agricultural chemistry and economic entomology. Post-graduate courses leading to advanced degrees are provided, and special courses in subjects relating to agriculture are also arranged.

BOARD OF INSTRUCTION.¹

Jacob Gould Schurman, M. A., D. Sc., LL. D., <i>Pres.</i>	George Francis Atkinson, Ph. B., <i>Bot.</i>
Isaac Phillips Roberts, M. Agr., <i>Dir. College Agr., Dean Faculty; Agr.</i>	Simon Henry Gage, B. S., <i>Anat.</i>
George Chapman Caldwell, B. S., Ph. D., <i>Agr. and General Chem.</i>	Willard Winfield Rowlee, B. L., D. Sc., <i>Plant Histology.</i>
James Law, F. R. C. V. S., <i>Vet. Medicine and Surgery.</i>	Henry Hiram Wing, M. S., (<i>Asst.</i>) <i>Animal Indus. and Dairy Husb.</i>
John Henry Comstock, B. S., <i>Ent. and General Invertebrate Zool.</i>	Mark Vernon Slingerland, B. S., (<i>Asst.</i>) <i>Ent.</i>
George Walter Cavanaugh, B. S., (<i>Asst.</i>) <i>Chem.</i>	Louis Adelbert Clinton, B. S., (<i>Asst.</i>) <i>Agr.</i>
Benjamin Minge Duggar, M. S., M. A., Ph. D., (<i>Asst.</i>) <i>Bot.</i>	Hugh C. Troy, B. S. A., <i>Asst. in Dairy Lab.</i>
Alexander Dyer MacGillivray, B. S. A., <i>Asst. in Ent.</i>	John W. Spencer, <i>Deputy Chief Nature Study and Univ. Extension Work.</i>
George Nieman Lauman, B. S. A., <i>Asst. in Hort.</i>	John Craig, B. S., M. S., <i>Univ. Extension Teaching in Agr. and Hort.</i>
Walter W. Hall, <i>Asst. in Cheese Making.</i>	Mrs. Anna Botsford Comstock, B. S., (<i>Asst.</i>) <i>Zool. and Ent.</i>
Webster E. Griffith, <i>Asst. in Butter Making.</i>	Mary Rogers Miller, B. S., <i>Lecturer in Nature Study and Univ. Extension Work.</i>
John Lemuel Stone, B. S. A., <i>Asst. in Agr.</i>	James Alfred Foord, B. S., <i>Asst. in Dairy Husb.</i>
Liberty Hyde Bailey, M. S., <i>General and Expt. Hort.</i>	Archibald R. Ward, B. S. A., <i>Asst. Dairy Bact.</i>
	Charles E. Hunn, <i>Foreman Garden.</i>
	Edward Arthur Butler, <i>Clerk and Accountant.</i>

NORTH CAROLINA.

The North Carolina College of Agriculture and Mechanic Arts, West Raleigh.

COURSES OF STUDY.

The general courses of study are six, each requiring four years for completion—the course in agriculture, leading to the degree of B. A.; the courses in civil, mechanical, electrical, and chemical engineering; and the course in textile science and art, each leading to the degree of B. E.

BOARD OF INSTRUCTION.

G. T. Winston, LL. D., <i>Pres.</i>	N. R. Stansel, B. S., <i>Asst. Phys. and Elect. Engin.</i>
W. F. Massey, C. E., <i>Hort., Arbor., and Bot.</i>	T. L. Wright, B. A., <i>Instr. Engl.</i>
W. A. Withers, M. A., <i>Chem.</i>	E. B. Owen, B. S., <i>Asst. in Engl.</i>
D. H. Hill, M. A., <i>Engl.</i>	J. M. Johnson, M. S., <i>Asst. Animal Indus.</i>
B. Irby, M. S., <i>Agr.</i>	R. E. L. Yates, M. A., <i>Asst. Math.</i>
W. C. Riddick, B. A., C. E., <i>Math. and Civil Engin.</i>	G. S. Fraps, Ph. D., <i>Asst. Chem.</i>
C. W. Scribner, B. A., M. E., <i>Mech. Engin.</i>	C. W. Hyams, <i>Instr. Bot. and Ent.</i>
F. A. Weihe, M. A., Ph. D., <i>Phys. and Elect. Engin.</i>	A. Rhodes, <i>Asst. in Hort.</i>
F. E. Phelps, Captain, U. S. A. (Retired), <i>Mil. Tactics and Hist.</i>	Henry M. Wilson, B. A., <i>Instr. Textile Sci. and Art.</i>
	T. A. Chittenden, B. S., <i>Asst. in Drawing.</i>
	C. L. Mann, B. S., <i>Asst. in Civil Engin.</i>

¹Includes only instructors in subjects directly relating to agriculture. Many other members of the university faculty give instructions to students pursuing the course leading to the degree of B. S. A.

BOARD OF INSTRUCTION—continued.

V. W. Bragg, <i>Supt. Wood Shops.</i>	J. A. Bizzell, M. S., <i>Instr. in Chem.</i>
M. E. Carter, <i>Instr. in Woodworking.</i>	W. A. Syme, <i>Asst. in Chem.</i>
F. M. Foy, jr., B. S., <i>Asst. in Civil Engin. and Archt.</i>	J. L. McKinnon, <i>Asst. in Dairying.</i>
L. B. Abbott, C. E., <i>Instr. in Civil Engin.</i>	E. B. Owen, B. S., <i>Libr.</i>
A. B. Hubbard, B. S., <i>Instr. Mech. Engin.</i>	Mrs. S. C. Carroll, <i>Matron.</i>
C. B. Park, <i>Supt. Shops.</i>	James R. Rogers, M. D., <i>Physician.</i>
B. S. Skinner, <i>Farm Supt.</i>	J. M. Fix, <i>Bursar.</i>
	A. F. Bowen, <i>Registrar and Sec.</i>
Mrs. E. V. Darby, <i>Sten.</i>	

The Agricultural and Mechanical College for the Colored Race, Greensboro.

COURSES OF STUDY.

The courses of study are: Agriculture, horticulture, arboriculture, and botany; chemistry, physics, mechanics, and applied mathematics; mathematics, English history, and domestic economy.

BOARD OF INSTRUCTION.

James B. Dudley, M. A., <i>Pres.; Hist.</i>	E. F. Colson, <i>Asst. in Prep. Dept.</i>
John Thompson, B. Agr., <i>Agr. and Chem.</i>	N. H. Little, <i>Asst. in Prep. Dept.</i>
Orlo Eppes, <i>Phys., Applied Math., and Mech.</i>	Frances E. Grimes, <i>Asst. in Prep. Dept.</i>
Charles H. Moore, M. A., <i>Engl.</i>	D. A. Williston, B. S. Agr., <i>Asst. in Agr.</i>
Miss Sophia M. Parker, <i>Domestic Sci.</i>	I. S. Cunningham, B. S., <i>Woodworking.</i>
Jos. S. Williams, M. A., <i>Prin. Prep. Dept.</i>	Burke Haywood, <i>Blacksmith.</i>
Miss M. H. Perry, <i>Asst. in Prep. Dept.</i>	Junius Rooks, <i>Foreman Farm.</i>
J. R. Quick, B. Agr., <i>Asst. in Prep. Dept.</i>	Alice V. Williams, <i>Matron.</i>

NORTH DAKOTA.**North Dakota Agricultural College, Agricultural College.**

COURSES OF STUDY.

Four-year courses leading to the degree of B. S. are as follows: Agriculture, mechanics, and science; there are also short courses in agriculture, dairying, and domestic economy.

BOARD OF INSTRUCTION.

J. H. Worst, LL. D., <i>Pres.</i>	P. S. Rose, B. S., <i>Steam Engin. and Math.</i>
E. F. Ladd, B. S., <i>Chem.</i>	Albert T. Mills, Ph. B., <i>Hist. and Civil Government.</i>
C. M. Hall, B. S., <i>Geol.</i>	H. L. Bolley, M. S., <i>Bot and Zool.</i>
J. H. Shepperd, M. S. A., <i>Agr.</i>	L. R. Waldron, B. S., (<i>Asst.</i>) <i>Bot. and Zool.</i>
A. M. Ten Eyck, M. S., (<i>Asst.</i>) <i>Agr.</i>	E. S. Keene, B. S., <i>Mech.</i>
G. Hult, M. S. A., <i>Modern Lang.</i>	Miss M. B. Senn, M. S., <i>Domestic Sci.</i>
H. W. McArdle, B. S., <i>Math.</i>	Mrs. P. A. Evans, <i>Libr.</i>
E. E. Kaufman, B. Agr., <i>Dairyman.</i>	Mrs. Ethel McVeety, <i>Asst. Libr.</i>
C. B. Waldron, B. S., <i>Hort and For.</i>	Hugh McGuigan, B. S., (<i>Asst.</i>) <i>Chem.</i>
C. H. Mallarian, Ph. D., <i>German, French, and Philos.</i>	H. M. Ash, <i>Supt. Farm.</i>
R. A. Shattuck, <i>Accountant and Bookkeeper.</i>	

OHIO.

**The Colleges of Agriculture and Domestic Science and of Veterinary
Medicine, Ohio State University, Columbus.**

COURSES OF STUDY.

The university is divided into six colleges, as follows: Agriculture and Domestic Science; Arts, Philosophy, and Science; Engineering; Law; Pharmacy; and Veterinary Medicine.

The College of Agriculture and Domestic Science offers six distinct courses of study: Four-year courses in agriculture, horticulture and forestry, and domestic science; two-year courses in agriculture and horticulture and domestic science, and a one-term course in dairying. Degrees are granted in the four-year courses as follows: B. S. in agriculture, B. S. in horticulture and forestry, and B. S. in domestic science.

The College of Veterinary Medicine offers a three-year course leading to the degree of D. V. M., and to a certificate of veterinary surgeon to those who fail in certain requirements for admission.

BOARD OF INSTRUCTION.

Rev. William Oxley Thompson, D. D., <i>Pres.</i>	Joseph Nelson Bradford, M. E., <i>Drawing.</i>
Thomas Forsyth Hunt, M. S., <i>Dean;</i> <i>Agr.</i>	Henry Curwen Lord, B. S., F. R. A. S., <i>Dir. Emerson McMullen Observatory and</i> <i>Astron.</i>
William Rane Lazenby, M. AGR., <i>Sec.;</i> <i>Hort. and For.</i>	Perla G. Bowman, (<i>Assoc.</i>) <i>Domestic Sci.;</i> <i>in Charge Dept. Domestic Econ.</i>
Henry Adam Weber, PH. D., <i>Agr. Chem.</i>	Frederick Converse Clark, M. A., PH. D., <i>Econ. and Sociology.</i>
Benjamin Franklin Thomas, PH. D., <i>Phys.</i>	Embury Asbury Hitchcock, M. E., (<i>As-</i> <i>soc.</i>) <i>Expt. Engin.</i>
George Wells Knight, PH. D., <i>American</i> <i>Hist. and Polit. Sci.</i>	William David Gibbs, M. S., <i>Agron.</i>
Rosser Daniel Bohannon, B. S., C. E., E. M., <i>Math.</i>	Charles Walter Mesloh, M. A., (<i>Assoc.</i>) <i>German.</i>
Ernst August Eggers, <i>Germanic Lang. and</i> <i>Lit.</i>	Charles Smith Prosser, M. S., (<i>Assoc.</i>) <i>Hist. Geol.; in Charge Dept. Geol.</i>
Albert Martin Bleile, M. D., <i>Anat. and</i> <i>Physiol.</i>	John Adams Bownocker, D. S., (<i>Assoc.</i>) <i>Inorganic Geol.; Curator Museum.</i>
William Ashbrook Kellerman, PH. D., <i>Bot.</i>	John Wright Decker, B. AGR., (<i>Assoc.</i>) <i>Dairy Husb.</i>
George Beecher Kauffman, B. S., <i>Phar-</i> <i>macy.</i>	William Lucius Graves, M. A., (<i>Asst.</i>) <i>Rhet.</i>
Benjamin Lester Bowen, PH. D., <i>Romance</i> <i>Lang. and Lit.</i>	Thomas Ewing French, M. E., (<i>Asst.</i>) <i>Drawing.</i>
Joseph Villiers Denney, A. B., <i>Rhet. and</i> <i>Engl. Lang.</i>	Cornelia Porter Souther, (<i>Assoc.</i>) <i>Domes-</i> <i>tic Art.</i>
Allen Campbell Barrows, A. M., D. D., <i>Engl. Lit.</i>	Charles Bradfield Morrey, B. A., M. D., (<i>Asst.</i>) <i>Anat. and Physiol.</i>
William Thomas Magruder, M. E., <i>Mech.</i> <i>Engin.</i>	Charles Lincoln Arnold, M. S., (<i>Asst.</i>) <i>Math.</i>
J. P. Gordy, PH. D., LL. D., <i>Education.</i>	Charles A. Bruce, B. A., (<i>Asst.</i>) <i>Romance</i> <i>Lang.</i>
David Stuart White, D. V. S., <i>Dean; Vet.</i> <i>Medicine.</i>	Paul Fischer, B. AGR., D. V. M., <i>Path.</i>
Herbert Osborn, M. S., <i>Zool. and Ent.</i>	John H. Schaffner, M. A., M. S., (<i>Asst.</i>) <i>Bot.</i>
Frank Edwin Sanborn, B. S., <i>Dir. Dept.</i> <i>Indus. Arts.</i>	

BOARD OF INSTRUCTION—continued.

- Charles Byron Frederick, V. S., (Asst.) *Vet. Medicine.*
 George H. McKnight, Ph. D., (Asst.) *Rhet.*
 Herrick C. Allen, LL. B., (Asst.) *Public Speaking.*
 J. Warren Smith, B. S., *Lecturer on Met.*
 Frederick Edward Kester, M. E. in E. E., *Instr. in Phys.*
 Burt Bidwell Herrick, *Instr. in Cheese Making.*
 Thomas Kenyon Lewis, B. Sc., *Asst. in Drawing.*
 Francis Leroy Landacre, B. A., *Asst. in Zool.*
 Albert Earl Vinson, *Asst. in Agr. Chem.*
 Frank Ruhlen, B. S. Agr., *Asst. in Agr.*
 C. L. E. Moore, *Student Asst. in Math.*
 Oscar V. Brumley, V. S., *Asst. in Vet. Medicine.*
 Silas Martin, *Asst. in Drawing.*
 Alonzo H. Tuttle, B. A., *Asst. in American Hist.*
 William H. Renck, *Instr. Indus. Arts and Foreman of Carpenter and Pattern Shops.*
 Charles P. Crowe, *Instr. Indus. Dept. and Forgemaster.*
 Francis M. Hamilton, B. A., *Asst. in Philos. and Pedag.*
 Delbert Alonzo Crowner, B. S. Agr., *Asst. in Butter Making.*
 Melvin Dresbach, M. S., *Fellow in Anat. and Physiol.*
 William E. Bohn, M. A., *Fellow and Theme Asst. in Rhet.*
 F. K. Luke, M. S., *Florist.*
 Fred J. Tyler, B. S. in H. and F., *Asst. in Bot.*
 Capt. George L. Converse, U. S. A. (Retired), *Mil. Sci. and Tactics.*
 Olive B. Jones, *Libr.*
 Christopher P. Linhart, M. D., *Dir. of Gymnasium and Instr. in Phys. Education.*
 Miss Clara Maud Berryman, (Assoc.) *Dir. of Gymnasium.*

OKLAHOMA.

Oklahoma Agricultural and Mechanical College, Stillwater.

COURSES OF STUDY.

The courses of study are: General science and literature; agricultural, including horticulture and veterinary science; mechanical engineering; and courses in special sciences—chemistry, biology, botany. Each course requires four years for completion and leads to the degree of B. S. Shorter special courses are given in stenography and typewriting and printing, and a special eight weeks' winter term in agriculture and the mechanic arts.

BOARD OF INSTRUCTION.

- Angelo C. Scott, M. A., LL. M., *Pres.; Engl. Lang. and Lit.*
 George L. Holter, B. S., *Chem.*
 Ernest E. Bogue,¹ M. S., *Bot. and Ent.*
 Edwin Mead Wilcox, Ph. D., *Bot. and Ent.*
 Lowery L. Lewis, M. S., D. V. M., *Zool. and Vet. Sci.*
 John Fields, B. S., *Dir. of Expt. Sta. and Sta. Chem.; Stock Feeding and Dean of Short Winter Courses.*
 Richard E. Chandler, M. M. E., *Mech. Engin. and Phys.*
 James W. Means, *Math.*
 Frank C. Burtis, M. S., *Agr. and Hort.*
 Frank A. Hutto, B. S., *Hist., Polit. Sci., and Libr.*
 Maud M. Gardiner, B. S., *Domestic Econ.*
 George W. Stevens, B. A., *Prin. Prep. Dept.*
 Miss May Overstreet, *Asst. in Prep. Dept.*
 Oscar M. Morris, B. S., *Instr. Hort.*
 George W. Stiles, *Asst. in Zool. and Vet. Sci.*
 Arthur B. McReynolds, B. S., *Asst. Sta. Chem.*
 Carl A. Bessey, B. A., B. S., *Asst. in Mech. Engin.*
 Robert H. Tucker, M. A., (Assoc.) *Lang.*
 Miss Georgina M. Holt, *Instr. in Sten. and Typewriting, and Official Sten.*
 Frank D. Northup, *Supt. of Printing Dept. and Instr. in Printing.*
 John S. Malone, B. S., *Asst. in Agr.*
 Cora Miltimore, B. S., *Asst. Libr.*
 Henry M. Hand, *Sec.*

¹ On leave.

Agricultural and Normal University, Langston.

COURSES OF STUDY.

The courses of study are six: Classical, leading to the degree of B. A.; scientific, leading to the degree of B. S.; normal, leading to the degree of B. S. D.; agricultural, leading to the degree of B. S. Agr.; electrical and mechanical engineering, leading to the degree of B. M. E.; civil architecture, leading to the degree of B. M. E. Each course requires four years for completion. There is also a three-year college preparatory course and a four-year normal elementary course.

BOARD OF INSTRUCTION.

Inman E. Page, M. A., <i>Pres.</i> ; <i>Psych. and Moral Philos.</i>	J. St. Cyr Tucker, B. S., <i>Natural Sci.</i>
Moses J. Johnson, B. A., <i>Engl. Lang. and Lit.</i>	Wm. A. Jackson, B. A., <i>Supt. of Mech. Dept.</i>
Wayne Manzilla, M. A., <i>Math.</i>	P. C. Parks, <i>Agr.</i>
	Zelia N. Page, B. S. D., <i>Instr. in Music.</i>
	Maria Williams, <i>Matron.</i>

OREGON.**Oregon State Agricultural College, Corvallis.**

COURSES OF STUDY.

There are four courses of study, each leading to the degree of B. S.: Agriculture, four years; mechanical engineering, four years; household economy (for girls), four years, and pharmacy, four years.

BOARD OF INSTRUCTION.

Thos. M. Gatch, M. A., Ph. D., <i>Pres.</i> ; <i>Mental and Moral Sci.</i>	C. M. McKellips, Ph. C., (<i>Asst.</i>) <i>Chem.</i> ; <i>Instr. Phar.</i>
James Withycombe, V. S., <i>Agr.</i> ; <i>V. Dir. Expt. Sta.</i>	J. B. Horner, M. A., Litt. D., <i>Engl. Lang. and Lit.</i>
F. Berchtold, M. A., <i>Dean; Lang. and Hist.</i>	Mrs. Ida B. Callahan, B. S., (<i>Asst.</i>) <i>Engl. Lang. and Lit.</i>
Ellen J. Chamberlin, M. A., <i>Lady Dean; Hist.</i>	Gordon V. Skelton, C. E., <i>Math. and Civil Engin.</i>
Grant A. Covell, M. E., <i>Mech., Mech. Engin. and Phys.</i>	Chas. L. Johnson, B. S., (<i>Asst.</i>) <i>Math. and Civil Engin.</i>
Ernest C. Hayward, E. E., (<i>Asst.</i>) <i>Mech., Mech. Engin. and Phys.</i>	A. B. Cordley, B. S., <i>Zool. and Ent.</i>
D. W. Prichard, <i>Asst. in Woodwork.</i>	Fred. M. McElfresh, B. S., (<i>Asst.</i>) <i>Zool. and Ent.</i>
M. Clyde Phillips, B. M. E., <i>Asst. in Blacksmithing.</i>	E. R. Lake, M. S., <i>Bot. and Hort.</i>
Margaret C. Snell, M. D., <i>Household Econ. and Hygiene.</i>	Geo. Coote, <i>Florist and Gardener.</i>
Mrs. Mary Avery, <i>Asst. in Sewing Dept.</i>	E. F. Pernot, <i>Bact. and Photography.</i>
F. L. Kent, B. Agr., <i>Asst. Agr. and Dairy Instr.</i>	F. D. McLouth, B. S., <i>Drawing.</i>
A. L. Knisely, M. S., <i>Chem.</i>	Helen V. Crawford, B. S., <i>Elocution.</i>
John F. Fulton, B. S., (<i>Asst.</i>) <i>Chem.</i>	Frank E. Edwards, B. M. E., <i>Cadet Major, Mil. Sci. and Tactics, Asst. Chem.</i>
	T. H. Crawford, M. A., <i>Instr. Bookkeeping and Clerk.</i>
	J. Bruce Patterson, B. A., <i>Phys. Dir.</i>
	Arthur J. Stimpson, B. S., <i>Libr.</i>

PENNSYLVANIA.

The Pennsylvania State College, *State College.*

COURSES OF STUDY.

The courses of study, each requiring four years for completion unless otherwise specified, are as follows: Classical course, leading to the degree of B. A.; general science course; Latin scientific course; course in agriculture; course in biology; course in chemistry; course in civil engineering; course in electrical engineering; course in mathematics; course in mechanical engineering; course in mining engineering; course in physics; course in philosophy; a short course in chemistry and a short course in mining engineering, each requiring two years for completion; short courses in agriculture and mining, each lasting twelve weeks, and a course in dairying and in creamery work of six weeks each. The four years' courses (except classical) lead to the degree of B. S., the diploma containing mention of the course pursued. Provision is also made for post-graduate study, leading to advanced degrees, and for one year of preparatory work.

BOARD OF INSTRUCTION.

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|---|--|
| George W. Atherton, LL. D., <i>Pres.; Polit. and Social Sci.</i> | Carl D. Fehr, M. A., (<i>Asst.</i>) <i>German.</i> |
| William A. Buckhout, M. S., <i>Bot. and Hort.</i> | Charles L. Griffin, B. S., (<i>Asst.</i>) <i>Machine Design.</i> |
| I. Thornton Osmond, M. S., M. A., <i>Phys.</i> | Anna E. Redifer, (<i>Asst.</i>) <i>Indus. Art and Design.</i> |
| Harriet A. McElwain, M. A., <i>Lady Prin.; Hist.</i> | Harry Hayward, B. S., (<i>Asst.</i>) <i>Dairy Husb.</i> |
| Louis E. Reber, M. S., <i>Mech. and Mech. Engin.</i> | John. H. Leete, B. A., (<i>Asst.</i>) <i>Math. in Charge of Subfreshman Class.</i> |
| William Frear, PH. D., <i>Agr. Chem.</i> | Elton D. Walker, B. S., (<i>Asst.</i>) <i>Civil Engin.</i> |
| George Gilbert Pond, M. A., PH. D., <i>Chem.</i> | Herbert E. Dunkle, B. S., M. E., <i>Instr. Mech. Drawing.</i> |
| Henry Prentiss Armsby, PH. D., <i>Lecturer on Stock Feeding.</i> | John A. Hunter, jr., B. S., M. E., <i>Instr. Mech. Engin.</i> |
| Benjamin Gill, M. A., <i>Greek and Latin.</i> | Irvin L. Foster, M. A., <i>Instr. Romance Lang.</i> |
| John Price Jackson, B. S., M. E., <i>Elect. Engin.</i> | Francis J. Pond, M. A., PH. D., <i>Instr. Assaying.</i> |
| Fred E. Foss, B. S., M. A., <i>Civil Engin.</i> | Walter J. Keith, M. A., PH. D., <i>Instr. Chem.</i> |
| Joseph M. Willard, B. A., <i>Math.</i> | Thomas H. Taliaferro, C. E., PH. D., <i>Instr. Math.</i> |
| Fred Lewis Pattee, M. A., <i>Engl. and Rhet.</i> | A. Howry Espensshade, M. A., <i>Instr. Rhet. and Elocution.</i> |
| George C. Watson, B. AGR., M. S., <i>Agr.</i> | Frank F. Thompson, B. S., E. E., <i>Instr. Elect. Engin.</i> |
| Erwin W. Runkle, M. A., PH. D., <i>Psych. and Ethics.</i> | Carl L. Becker, B. L., <i>Instr. in Hist. and Polit. Sci.</i> |
| Harvey A. Surface, M. S., <i>Zool.</i> | Norman C. Riggs, M. S., <i>Instr. in Math.</i> |
| Dillard H. Clark, Captain, U. S. A., <i>Mil. Sci. and Tactics.</i> | Jesse Briggs Churchill, B. S., <i>Instr. in Indus. Chem.</i> |
| George C. Butz, M. S., (<i>Asst.</i>) <i>Hort.</i> | Harvey C. Grumbine, PH. D., <i>Instr. in German.</i> |
| Madison M. Garver, B. S., (<i>Asst.</i>) <i>Phys.</i> | Louis L. Ansart, B. S., <i>Instr. in Math.</i> |
| Franklin E. Tuttle, M. A., PH. D., (<i>Asst.</i>) <i>Chem.</i> | |
| William Mason Towle, B. S., (<i>Asst.</i>) <i>Practical Mech.</i> | |
| Joseph H. Tudor, C. E., M. S., (<i>Asst.</i>) <i>Math.</i> | |

BOARD OF INSTRUCTION—continued.

Arthur S. Shoffstall, B. S., <i>Asst. in Chem. Lab.</i>	Clara Dayton Wyman, <i>in Charge Music.</i>
Helen M. Bradley, <i>Libr.</i>	Anna Addams McDonald, <i>Asst. Libr.</i>
	W. Nelson Golden, <i>Phys. Dir.</i>
William C. Patterson, <i>Supt. Grounds and Buildings.</i>	

RHODE ISLAND.

Rhode Island College of Agriculture and Mechanic Arts, Kingston.

COURSES OF STUDY.

The courses of study are five: Agricultural, mechanical engineering, chemical, biological, and electrical engineering. Each requires four years for completion, and leads to the degree of B. S. A short winter course in agriculture, mechanics, and horticulture, with shop and laboratory work, together with a poultry school extending through six weeks, is given from January 1 to April 1. A preparatory department with two years' course for students from country schools, to prepare them for college courses.

BOARD OF INSTRUCTION.

John H. Washburn, Ph. D., <i>Pres.; Chem.</i>	Mabel D. Eldred, B. S., <i>Instr. Drawing.</i>
A. A. Brigham, Ph. D., <i>Agr.</i>	S. W. Sanderson, B. L., <i>Instr. Engl.</i>
Homer J. Wheeler, Ph. D., <i>Geol.</i>	E. W. Kenyon, M. A., <i>Instr. Engl. and Hist.</i>
A. L. Bosworth, Ph. D., <i>Math.</i>	George B. Knight, <i>Instr. Mech.</i>
E. J. Watson, M. A., <i>Lang.</i>	Howland Burdick, B. S., <i>Asst. in Agr.</i>
Wm. E. Drake, B. S., <i>Mech. Engin.</i>	M. H. Tyler, B. S., <i>Civil Engin.</i>
H. L. Merrow, M. A., <i>Bot.</i>	Charles Beardsley, B. A., <i>Polit. Sci.</i>
Cooper Curtice, D. V. S., M. D., Ph. D., <i>Zool.</i>	Carroll Knowles, B. S., <i>Asst. Instr. Mech.</i>
John E. Bucher, Ph. D., <i>Agr. Chem.</i>	Nathaniel Helme, <i>Met.</i>
F. W. Card, M. S., <i>Hort.</i>	L. H. Gage, B. A., <i>Sten.</i>
A. C. Scott, B. S., <i>Phys. and Elect.</i>	Captain Tiberio Garcia Aloma, <i>Asst. Instr. Spanish.</i>
Thos. C. Rodman, <i>Instr. Woodwork.</i>	A. A. Radtke, B. S., <i>Asst. in Phys.</i>
John F. Knowles, B. S., <i>Instr. Woodwork.</i>	

SOUTH CAROLINA.

Clemson Agricultural College, Clemson College.

COURSES OF STUDY.

There is one course of study offered in the freshman year, two in the sophomore, three in the junior and senior years—one in chemistry and agriculture, one in mechanics and engineering, and one in textile engineering.

BOARD OF INSTRUCTION.

Henry S. Hartzog, LL. D., <i>Pres.</i>	P. T. Brodie, B. S., B. A., <i>Math.</i>
M. B. Hardin, <i>Chem.</i>	J. V. Lewis, B. E., <i>Geol.</i>
J. S. Newman, <i>Agr.</i>	R. N. Brackett, B. A., (<i>Asst.</i>) <i>Chem.</i>
W. H. Boehm, <i>Mech.</i>	C. B. Waller, B. A., (<i>Asst.</i>) <i>Math.</i>
C. M. Furman, B. A., <i>Engl.</i>	D. W. Daniel, (<i>Asst.</i>) <i>Engl.</i>
W. S. Morrison, B. A., <i>Hist.</i>	C. C. Newman, <i>Hort.</i>
G. Shanklin, <i>Acting Commandant; Mil. Sci. and Tactics.</i>	C. M. Conner, B. S., <i>Animal Hush. and Dairying.</i>

BOARD OF INSTRUCTION—continued.

A. M. Redfearn, B. S., M. D., <i>Instr. Physiol.</i>	T. G. Poats, <i>Instr. Phys.</i>
J. S. McLucas, B. A., M. A., <i>Asst. in Eng.</i>	A. P. Anderson, <i>Ent.</i>
R. E. Lee, <i>Instr. Drawing and Mech. Designing.</i>	J. H. M. Beaty, <i>Dir. Textile Dept.</i>
F. S. Shiver, Ph. G., <i>Asst. Chem.</i>	W. W. Klugh, <i>Asst. Instr. Drawing.</i>
W. Johnson, <i>Instr. Forge and Foundry.</i>	S. M. Martin, M. A., <i>Tutor.</i>
G. E. Nesom, B. S., D. V. M., <i>Instr. Vet. Sci.</i>	C. S. Wright, <i>Instr. Machine Shops.</i>
W. M. Riggs, B. S., E. and M. E., <i>Instr. Elect; in Charge Elect. Lab.</i>	F. D. Frissell, <i>Instr. Designing Textile Dept.</i>
Albert Barnes, M. E., <i>Instr. Woodwork; in Charge Mech. Lab.</i>	E. P. Earle, jr., <i>Asst. Instr. Forge and Foundry.</i>
P. H. Rolfs, M. S., <i>Bot.</i>	J. H. Hook, <i>Asst. Instr. Woodwork.</i>
	L. C. Raiford, <i>Instr. in Dyeing and Organic Chem.</i>

The Colored Normal, Industrial, Agricultural, and Mechanical College of South Carolina, Orangeburg.

COURSES OF STUDY.

The courses of study are four in number and require four years each for completion. The collegiate normal and industrial course, leading to the degree of B. A.; the agricultural course, leading to the degree of B. Agr.; the mechanical course, leading to the degree of B. S.; and the preparatory course, leading up to the three above-named courses.

BOARD OF INSTRUCTION.

Thos. E. Miller, LL. D., <i>Pres.; Agr., Dir. Indus.</i>	Julia A. McLain, <i>Kindergarten and Asst. in Engl.</i>
J. E. Wallace, <i>Engl. Lit., Pedag., and Moral Sci.</i>	Olive A. Sasportas, <i>Asst. in Engl.</i>
R. S. Wilkinson, M. A., Ph. D., <i>Phys. and Chem.</i>	Otis C. Davenport, <i>Engl. and Vocal Music.</i>
N. C. Nix, B. A., <i>Math.</i>	S. M. Boston, <i>Supt. Ironwork and Painting.</i>
R. L. Douglass, M. A., <i>Hist. and Polit. Sci.</i>	Wm. Gruber, <i>Supt. Woodwork.</i>
J. C. Whittaker, <i>Math. and Mil. Sci.</i>	J. R. Steele, <i>Supt. Brickwork.</i>
Sarah V. Smalls, <i>Phys. Sci.</i>	G. C. Williams, <i>Supt. Farm.</i>
Louise B. Fordham, <i>Drawing and Art.</i>	M. Tucker, <i>Asst. in Dairy.</i>
Anna M. Miller, <i>Bookkeeping and Typewriting; College Accountant.</i>	S. D. Frazier, <i>Asst. in Surveying and Phys.</i>
Alice B. McLeod, <i>Engl.</i>	E. F. Mikell, <i>Instr. Band Music and Engl.</i>
	C. C. Davis, <i>Dressmaking and Plain Sewing.</i>
	C. J. Gregg, <i>Domestic Econ. and Matron.</i>
	John Palmer, <i>Engin.</i>

SOUTH DAKOTA.

South Dakota Agricultural College, Brookings.

COURSES OF STUDY.

About four-fifths of the regular five years' work leading to the B. S. degree is the same for all. The remainder of the fifty-five courses required are elective and must be taken in some two departments of instruction. Regular three years' work in pharmacy is offered for the Ph. G. degree. A diploma is granted those completing the prescribed year's work in commercial science and steam engineering; and a certificate to those completing the special quarter-year's work offered in agriculture, horticulture, dairying, and domestic science.

BOARD OF INSTRUCTION.

John William Heston, PH. D., LL. D., <i>Pres.; Hist. and Econ.</i>	Edith Louise Pratt, ¹ <i>Music and Physical Culture.</i>
George Lincoln Brown, PH. D., <i>Math. and Astron.</i>	De Alton Saunders, M. A., <i>Bot. and Ent.</i>
Lucy Amelia Du Bois, B. A., <i>Preceptress, Engl. and Latin.</i>	James Henry Shepard, B. S., <i>Chem.</i>
Frank Gregory Orr, <i>Sec. and Registrar.</i>	Halvor Christian Solberg, M. E., <i>Mech. and Steam Engin.</i>
Ada Bertha Caldwell, <i>Indus. Art.</i>	John Hersey Wheeler, B. A., <i>Modern Lang. and Dir. of Athletics.</i>
Ellery Channing Chilcott, M. S., <i>Agri. and Geol.</i>	Bower Thomas Whitehead, B. S., PH. C., <i>Pharmacy.</i>
Arthur Boone Crosier, <i>Sten. and Commercial Sci.</i>	———, <i>Mil. Sci. and Tactics.</i>
Elmer Kendall Eyerly, M. A., <i>Engl. Lit. and Oratory.</i>	Austin Benjamin Crane, B. S., <i>Asst. in Math.</i>
Alice Dynes Feuling, B. S., <i>Domestic Sci.</i>	Albert Spencer Harding, M. A., <i>Asst. in Hist. and Econ.</i>
Nels Ebbesen Hansen, M. S., <i>Hort. and Flor.</i>	Howard Hartman Hoy, B. S., <i>Asst. in Mech. Engin.</i>
Robert Floyd Kerr, M. A., <i>Libr. and Prin. of Prep. Dept.</i>	William Haw Knox, B. S., <i>Asst. in Chem.</i>
Hubert Berton Mathews, M. S., <i>Phys. and Elect. Engin.</i>	Minnie Minerva Lawrence, B. S., <i>Asst. in Domestic Sci.</i>
Edward Lockhart Moore, B. S., D. V. S., <i>Zool. and Vet. Med.</i>	Minnie McNamee, <i>Asst. in Music and Phys. Culture.</i>
Joseph Greeley Parsons, M. D., <i>Med. Dir. of Gymnasium.</i>	Walter Strickland Thornber, M. S., <i>Asst. in Bot. and Hort.</i>
Albert H. Wheaton, <i>Asst. in Animal Husb. and Dairy Sci.</i>	

TENNESSEE.

State Agricultural and Mechanical College of the University of Tennessee,
Knoxville.

COURSES OF STUDY.

The courses of study are seven: Literary course, scientific course, course in agriculture, course in civil engineering, course in mechanical engineering, course in electrical engineering, chemical course, and pharmaceutical course. The degrees of B. A. and B. S. are conferred.

BOARD OF INSTRUCTION.

Chas. W. Dabney, PH. D., LL. D., <i>Pres.</i>	Charles W. Turner, M. A., (<i>Acting</i>) <i>Hist.</i>
W. W. Carson, C. E., M. E., <i>Civil Engin.</i>	Joshua W. Caldwell, M. A., <i>Lecturer on Constitutional Hist.</i>
T. W. Jordan, M. A., <i>Latin.</i>	Edward T. Sanford, M. A., LL. B., <i>Lecturer on Hist. of Tennessee.</i>
C. E. Wait, C. E., M. E., PH. D., F. C. S., <i>Chem.</i>	Henry J. Darnall, (<i>Adjunct</i>) <i>Modern Lang.</i>
A. M. Soule, B. S. A., <i>Agr.</i>	Andrew H. Nave, Captain, U. S. A., <i>Mil. Sci. and Tactics.</i>
C. H. Shannon, B. A., PH. D., <i>Greek.</i>	J. R. McColl, B. S., (<i>Asst.</i>) <i>Mech. Engin.</i>
J. Douglas Bruce, M. A., PH. D., <i>Engl.</i>	Charles E. Ferris, B. S., (<i>Asst.</i>) <i>Drawing.</i>
C. D. Schmitt, M. A., <i>Math.</i>	
Charles A. Perkins, PH. D., <i>Phys. and Elect. Engin.</i>	

¹ On leave.

BOARD OF INSTRUCTION—continued.

S. M. Bain, B. A., (<i>Asst.</i>) <i>Bot.</i>	Hetty S. Jarnagin, <i>Libr.</i>
Jas. D. Hoskins, M. A., B. L., (<i>Asst.</i>) <i>Hist.</i>	Charles Ansell Mooers, B. S., <i>Instr. in Agr. Chem.</i>
Charles A. Keffer, <i>Hort. and For.</i>	Weston M. Fulton, B. A., <i>Instr. Met.</i>
Thomas Dallam Morris, B. L., <i>Bursar-Registrar.</i>	Charles O. Hill, <i>Asst. Chem., Instr. Chem. and Pharmacy.</i>
John R. Fain, <i>Foreman of Expt. Farm.</i>	Henry M. Edmonds, B. A., <i>Instr. Phys. Culture.</i>
George A. Flickinger, B. S. Agr., <i>Stock and Dairyman.</i>	Anne M. Gilson, <i>Instr. Phys. Culture, Woman's Dept.</i>
William K. Hunter, B. A., <i>Asst. Chem.</i>	Frank B. Davant, <i>Foreman Shops.</i>
Phares O. Vanatter, <i>Foreman of Plat Expts.</i>	Ivor Livingston, <i>Foreman Forge Shop.</i>
Florence Skeffington, <i>Dean Woman's Dept. and (Asst.) Engl.</i>	

TEXAS.

State Agricultural and Mechanical College of Texas, *College Station.*

COURSES OF STUDY.

There are four regular courses of study: Agriculture, horticulture, mechanical engineering, and civil engineering. Each extends through four years and leads to the degree of B. S., the particular course being specified in the diploma. Special, elective, and graduate courses are also provided.

BOARD OF INSTRUCTION.

L. L. Foster, <i>Pres.</i>	Fred W. Mally, M. S., <i>Ent.</i>
R. H. Whitlock, M. E., <i>Mech. Engin.</i>	A. L. Banks, B. A., M. S., (<i>Assoc.</i>) <i>Math.</i>
H. H. Harrington, M. S., <i>Chem. and Min.</i>	H. Ness, B. S., <i>Hort.</i>
C. Puryear, M. A., C. E., <i>Math.</i>	D. W. Spence, B. S., C. E., <i>Phys.</i>
Mark Francis, D. V. M., <i>Vet. Sci.</i>	C. E. Burgoon, B. M. E., (<i>Asst.</i>) <i>Mech. Engin.</i>
F. E. Giesecke, M. E., <i>Drawing.</i>	E. W. Kerr, B. S., (<i>Asst.</i>) <i>Mech. Engin.</i>
J. C. Nagle, M. A., C. E., M. C. E., <i>Civil Engin.</i>	Charles H. Alvord, B. S., (<i>Asst.</i>) <i>Agr.</i>
R. H. Price, B. S., <i>Hort. and Mycol.</i>	H. W. South, (<i>Assoc.</i>) <i>Engl. and Hist.</i>
T. C. Bittle, M. A., Ph. D., <i>Lang.</i>	A. C. Gillespie, M. D., <i>Surgeon.</i>
J. H. Connell, M. S., <i>Agr.</i>	J. A. Baker, <i>Sec.</i>
C. W. Hutson, <i>Hist.</i>	J. G. Harrison, <i>Bookkeeper.</i>
J. C. Edmonds, <i>Mil. Sci.; Commandant.</i>	Bernard Sbisá, <i>Steward.</i>
R. F. Smith, (<i>Assoc.</i>) <i>Math.</i>	S. E. Gideon, <i>Instr. in Shop.</i>
P. S. Tilson, M. S., (<i>Assoc.</i>) <i>Chem.</i>	J. W. Carson, <i>Farm Supt.</i>
W. B. Philpott, M. S., (<i>Assoc.</i>) <i>in Charge of Engl. Dept.</i>	B. C. Pittuck, <i>Station Agr.</i>
C. P. Fountain, <i>Instr. Engl.</i>	A. C. Loue, (<i>Asst.</i>) <i>Drawing.</i>
	E. A. White, (<i>Asst.</i>) <i>Hort.</i>

UTAH.

Agricultural College of Utah, *Logan.*

COURSES OF STUDY.

The college work includes six distinct lines of instruction: Course in agriculture, course in mechanical engineering, course in civil engineering, course in general science, course in domestic arts, and commercial course. There are four special courses:

A two-years' commercial course, a two-years' course in agriculture, a two-years' course in domestic arts, and a three-years' course in mechanic arts. In addition to these special courses there are two courses of winter lectures, covering ten weeks each: A course of agricultural lectures and a course of lectures for the domestic arts department. A preparatory department is maintained.

BOARD OF INSTRUCTION.

William Jasper Kerr, B. S., D. Sc., <i>Pres.</i> ;	Lewis A. Merrill, B. S., (<i>Asst.</i>) <i>Agr. and</i>
<i>Math. and Astron.</i>	<i>Vet. Sci.</i>
Elias J. MacEwan, M. A., <i>Sec. of Faculty</i> ;	Edward W. Robinson, (<i>Asst.</i>) <i>German.</i>
<i>Engl. Lang. and Lit.</i>	John T. Caine, jr., B. S., <i>Prin. Prep. Dept.</i> ;
F. B. Linfield, B. S. A., <i>Dairying and Animal Husb.</i>	<i>Instr. Engl.</i>
John A. Widtsoe, B. S., M. A., Ph. D.,	Sara Godwin Goodwin, <i>Libr.</i>
<i>Dir. Expt. Sta.; Chem. and Min.</i>	Ruth Evelyn Moench, <i>Instr. Elocution and</i>
Dalinda Cotey, B. S., <i>Domestic Arts.</i>	<i>Phys. Culture.</i>
Joseph Jenson, <i>Dir. Workshops; Mech. Engin.</i>	John Stewart, B. S., <i>Asst. in Chem.</i>
John W. Faris, <i>Prin. Commercial Dept.</i> ;	August J. Hansen, <i>Foreman in Carpentry.</i>
<i>Econ. and Bookkeeping.</i>	Julien P. Griffin, <i>Foreman in Forging.</i>
Charles P. Close, M. S., <i>Bot., Hort., and Ent.</i>	John A. Crockett, <i>Asst. in Dairy Dept.</i>
George L. Swendsen, B. S., <i>Civil Engin.</i>	William Peterson, B. S., <i>Instr. Math.</i>
Clarence Snow, B. S., <i>Phys.</i>	Peter W. Maughan, <i>Instr. Penmanship.</i>
Ephraim G. Gowans, B. S., M. D., <i>Animal Biol.</i>	Samuel B. Mitton, <i>Instr. Vocal Music.</i>
John Franklin Engle, M. A., Ph. D., <i>Hist. and Geog.</i>	Herbert W. Hill, B. L., <i>Instr. Engl.</i>
James Dryden, (<i>Asst.</i>) <i>Met. and Sten.</i>	Rena Baker, <i>Instr. Engl.</i>
Willard S. Langton, B. S., (<i>Asst.</i>) <i>Math. and Astron.</i>	Elvin Jensen Norton, <i>Private Sec. to Pres.</i>
	Lydia Holmgren, <i>Asst. in Domestic Arts.</i>
	Edward Parley Pulley, <i>Instr. in Mech. Drawing.</i>
	Rhoda B. Cook, <i>Instr. Sewing and Millinery.</i>
	Louise Richards, <i>Instr. Art.</i>
	B. K. Jones, <i>Asst. in Chem.</i>
	Robert Stewart, <i>Instr. Mil. Sci. and Tactics.</i>

VERMONT.

University of Vermont and State Agricultural College, Burlington.

COURSES OF STUDY.

The four-year academical courses are seven in number: Classical, leading to the degree of B. A.; literary-scientific, leading to the degree of Ph. B.; civil and sanitary engineering, electrical engineering, mechanical engineering, chemical, agricultural, leading to the degree of B. S., the particular course being specified in the diploma. A dairy-school course of four weeks' duration is carried on each winter.

BOARD OF INSTRUCTION.

M. H. Buckham, D. D., LL. D., <i>Pres.</i> ;	J. E. Goodrich, D. D., <i>Latin.</i>
<i>Polit. and Social Philos.</i>	S. F. Emerson, Ph. D., <i>Hist.</i>
H. A. P. Torrey, LL. D., <i>Dean Dept. Arts</i> ;	N. F. Merrill, Ph. D., <i>Chem.</i>
<i>Intellectual and Moral Philos.</i>	A. L. Daniels, D. Sc., <i>Math.</i>
V. G. Barbour, Ph. B., C. E., <i>Dean Dept. Engin.</i> ;	L. J. Huff, M. A., <i>German.</i>
<i>Mech. and Bridge Engin.</i>	J. W. Votey, C. E., <i>Civil Engin.</i>
G. H. Perkins, Ph. D., <i>Dean Dept. Natural Sci.</i> ;	L. R. Jones, Ph. B., <i>Bot.</i>
<i>Natural Hist.</i>	A. W. Ayer, B. S., <i>Mech. Engin.</i>

BOARD OF INSTRUCTION—continued.

- J. L. Hills, B. S., *Dean Dept. Agr.; Agr. Chem.*
 F. Tupper, jr., Ph. D., *Rhet. and Engl. Lit.*
 A. W. Slocum, M. A., *Phys.*
 G. E. Howes, Ph. D., *Greek.*
 F. A. Waugh, M. S., *Hort.*
 W. H. Fredman, C. E., E. E., *Elect. Engin.*
 H. A. Torrey, Ph. D., (*Asst.*) *Chem.*
 A. D. Butterfield, M. S., (*Asst.*) *Math.; Engin.*
 F. A. Rich, V. S., M. D., *Instr. Vet. Med.*
 J. Eaton, *Instr. Shopwork.*
 C. W. Doten, M. A., *Instr. Elocution; Sec. and Registrar.*
 E. C. Jacobs, B. S., *Min.*
 Wm. D. Briggs, Ph. D., *Instr. Engl. and German.*
 Chas. E. Seaman, M. A., *Instr. Polit. Econ. and Constitutional Law.*
 Wm. S. Hayes, B. A., *Instr. French and Romance Lang.*
 Oscar R. Wilson, M. E., *Instr. Mech. Engin.*
 Wilbur A. Coit, Ph. B., *Instr. Math.*
 Wilbur C. Sawyer, B. S., *Instr. Drawing.*
 C. E. Toof, *Instr. Dairying.*
 G. W. Strong, *Instr. Dairying.*
 Duncan Stuart, B. S., *Instr. Dairying.*
 Edith E. Clarke, Ph. B., *Libr.*

VIRGINIA.

Virginia Agricultural and Mechanical College (Polytechnic Institute),
Blacksburg.

COURSES OF STUDY.

The courses of study are seven, each requiring four years for completion and leading to the degree of B. S.: Agricultural course, horticultural course, applied chemistry course, general science course, civil engineering course, mechanical engineering course, and electrical engineering course. There are also two courses which require two years for completion and lead to a certificate of practical agriculture and practical mechanics.

BOARD OF INSTRUCTION.

- J. M. McBryde, Ph. D., LL. D., *Pres.*
 W. B. Alwood, *Hort., Ent., and Myc.*
 R. H. Hudnall, Ph. D., *Engl. Hist. and Polit. Econ.*
 E. A. Smyth, jr., M. A., *Biol.*
 T. P. Campbell, M. A., *Modern. Lang.*
 S. R. Pritchard, M. A., *Elect. Engin.*
 R. C. Price, F. C. S., *Chem., Min., and Geol.*
 D. O. Nourse, B. S., *Agr.*
 L. S. Randolph, M. E., *Mech. Engin.*
 W. M. Patton, C. E., *Civil Engin.*
 R. J. Davidson, M. A., *Anal. and Agr. Chem.*
 E. P. Niles, D. V. M., *Vet. Sci.*
 C. E. Pawter, jr., B. S., *Math. and Phys.*
 G. W. Walker, B. A., (*Asst.*) *Math., Engl., and Latin.*
 W. D. Saunders, (*Asst.*) *Dairy Husb.*
 J. R. Parrott (*Adjunct*), *Woodwork and Dir. Shops.*
 A. T. Eskridge, M. S., *Instr. Min., Geol., and Chem.*
 C. I. Wade, *Treas.*
 W. G. Conner, M. E., *Asst. Machine Work.*
 H. Bannister, D. V. M., *Asst. Vet. Sci.*
 A. W. Drinkard, M. S., *Sec.; Instr. Engl. and Hist.*
 J. M. Johnson, *Instr. Forge and Foundry.*
 J. S. A. Johnson, M. E., *Instr. Math. and Mech. Engin., and Commandant of Cadets.*
 W. H. Rasch, (*Asst.*) *Drawing.*
 C. Lee, B. S., *Instr. in Elect. Engin.*
 H. L. Price, M. S., *Instr. in Hort.*
 I. L. Phillips, M. S., *Instr. in Ent.*
 F. D. Wilson, M. S., Ph. D., *Instr. Min. and Chem.*
 G. L. Fentrass, B. S., *Asst. Math. and Engl.*
 S. H. McGregor, B. S., *Asst. Woodwork and 2d Asst. Commandant of Cadets.*
 I. A. Waddell, B. S., *Asst. Math. and 1st Asst. Commandant of Cadets.*
 R. H. C. Beverley, B. S., *Asst. in Mech. Engin.*

The Hampton Normal and Agricultural Institute, Hampton.

COURSES OF STUDY.

The academic course of study requires three years for completion and a diploma is given on graduation. There are also trade and agricultural courses for undergraduates, requiring three years. The post-graduate courses are: Agriculture, three years; trades, three years; normal, two years, and business, one year.

BOARD OF INSTRUCTION.

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|---|--|
| H. B. Frissell, D. D., <i>Prin.; Mental Philos.</i> | Louise M. Goodrich, <i>Engl., Geog., Arith., and Elementary Sci.</i> |
| H. B. Turner, <i>Chaplain; Bible Lessons.</i> | Ethel D. Gowans, <i>Elementary Sci., Engl., Arith., and Geog.</i> |
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¹ Telegraph office, Clemson College, S. C.; express and freight address, *Cathoun*.

TENNESSEE.

Tennessee Agricultural Experiment Station, Knoxville.

Department of the University of Tennessee.

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Agricultural Experiment Station, Logan.

Department of the Agricultural College of Utah.

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Department of University of Vermont and State Agricultural College.

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VIRGINIA.

Virginia Agricultural Experiment Station, Blacksburg.¹

Department of Virginia Agricultural and Mechanical College and Polytechnic Institute.

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Washington Agricultural Experiment Station, Pullman.

Department of Washington Agricultural College and School of Science.

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¹ Express and freight address, *Christiansburg Depot*.

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WEST VIRGINIA.

West Virginia Agricultural Experiment Station, *Morgantown.*

Department of West Virginia University.

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Department of the University of Wyoming.

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FOREIGN EXPERIMENT STATIONS.¹

ALGERIA.

Station.	Location.	Director.
Agricultural and Oenological Station.....	Algiers	J. Dugast.
Agricultural Station	Philippeville	
Agricultural School and Experiment Station.....	Rouiba	

ARGENTINA.

Experimental Field of the Agricultural and Veterinary School.	La Plata, Buenos Ayres.	Sebastian Godoy.
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AUSTRALIA.

Central Agricultural Bureau	Adelaide, South Australia.	John A. Cockburn.
Botanic Gardens	do	Maurice Holtze.
Experimental Farm	Bathurst, New South Wales.	A. A. Dunning.
Murrumbidgee Agricultural College and Experimental Farm.	Bomen, Wagga Wagga, New South Wales.	G. M. McKeown.
Experimental Farm	Booral, New South Wales.	H. V. Jackson.
Acclimatization Society	Brisbane, Queensland	E. Grimley.
Queensland Department of Agriculture	do	
Botanic Garden	do	F. M. Bailey.
State Nursery	Cairns, Queensland.	
Experiment Farm	Coolabah, New South Wales.	
Agricultural College and Experimental Farm	Dookie, Victoria.	
Experimental Station	Drakesbrook, Western Australia.	G. F. Berthoud.
Agricultural College and Experimental Farm.....	Framlingham, Victoria.	
Agricultural College and Experimental Farm.....	Gatton, Queensland ..	J. Mahon.
Experiment Farm	Gindie, Queensland ..	
Council of Agriculture	Hobart, Tasmania	T. A. Tabart.
Botanic Gardens	do	F. Abbott.
Experiment Station	Indooroopilly, Queensland.	
State Nursery	Kamerunga, Queensland.	
Agricultural College and Experimental Farm.....	Longerenong, Victoria.	
Agricultural School and Experiment Farm	Mackay, Queensland ..	
Botanic Gardens	Melbourne, Victoria ..	W. R. Guilfoyle.
Irrigation Experimental Field	Pera Bore, New South Wales.	Gorman.
Department of Agriculture	Perth, Western Australia.	L. Lindley-Cowen.
Botanic Gardens	Port Darwin, South Australia.	Nicholas Holtze.
The Hawkesbury Agricultural College and Experimental Farm.	Richmond, New South Wales.	Geo. Valder.
Acclimatization Society's Gardens	Rockhampton, Queensland.	J. S. Edgar.
Agricultural College and Experimental Farm.....	Roseworthy, South Australia.	William Lowrie.
Botanic Gardens and Domains	Sydney, New South Wales.	J. H. Maiden.
Department of Agriculture	do	John L. Fegan.
Experimental Farm	Wollongbar (Richmond River), New South Wales.	

¹ This list includes agricultural experiment stations and other institutions in connection with which investigations relating to agriculture are conducted.

Foreign Experiment Stations—Continued.

AUSTRIA-HUNGARY.

Station.	Location.	Director.
Experiment Station for Field Crops and Commercial Fertilizers.	Altenburg, Ungarisch (Magyar-Óvár).	Sándor Cserháti.
Station for Diseases of Plants	do	Prof. G. Linhart.
Station for Testing Agricultural Implements	do	Prof. V. Thallmayer.
Station for Chemical Analysis	do	
Seed Control Station	do	
Royal Tobacco-Culture Station	Békés Csaba	Odön Kállay.
Agricultural Chemical Experiment Station	Budapest	Victor Vedródi.
Agricultural Experiment Station	do	Prof. Dr. Liebermann.
Horticultural Institute	do	
Entomological Station	do	Jozsef Jablonovszky.
Royal Hungarian Seed Control Station	do	Dr. Arpád Degen.
Royal Station for Animal Physiology and Foods	do	Prof. Dr. Ferencz Tangl.
Chemical Laboratory of the Agricultural Secondary School.	Chrudin	Prof. Joh. Trojan.
Seed Control Station	Debreczen	Prof. Kálmán Kerpely.
Tobacco-Culture Station	do	Prof. Kálmán Kerpely.
Station for Chemical Analysis	Klosterneuburg	
Agricultural Chemical Experiment Station	Dublany, Galicia	J. M. Pomorski.
Seed-Testing Station of the Agricultural Institute.	do	Dr. Ign. Szyszytowicz.
Agricultural Chemical Experiment Station of the Vorarlberg Agricultural Society.	Feldkirch	Dr. Wilh. Eugling.
Agricultural Chemical Experiment Station	Gorizia	Johann Bolle.
Pomological and Seed Control Station of the Pomological Association of Middle Steiermark.	Gratz	Dr. Ed. Hotter.
Seed Control Station of the Agricultural Secondary School.	Kaaden	Prof. Andr. Nowoczek.
Chemical Experiment Station	Kaschau	Prof. Zsigmond Zalka.
Seed Control Station	do	Géza Gerloczy.
Chemical Experiment Station	Keszthely	Jenő Nyiredy.
Seed Control Station	do	
Agricultural Chemical Experiment Station of the Royal Imperial Agricultural Society.	Klagenfurt	Dr. H. Swoboda.
Laboratory for Investigations on Seeds, Fertilizers, and Soils at the Agricultural School.	Klattau	Friedrich Nebovidsky.
Chemical Experiment Station	Klausenburg	Professor Fabinyi.
Chemical Physiological Experiment Station for Grape and Fruit Growing.	Klosterneuburg	Prof. Dr. Leouh. Roesler.
Seed Control Station	Kolosmonostor	Prof. Béla Pater.
Jagellon University	Krakau	Emil Godlewski.
Agricultural Chemical Institute	do	
Institute of Animal Industry	do	
Institute of Agricultural Engineering	do	Thaddäus Silorski.
Agricultural Chemical Experiment and Seed Control Station.	Laibach	Dr. Ernst Kramer.
Agricultural Chemical Experiment and Seed Control Station.	Leitmeritz	Ant. J. Kollar.
Prince Schwarzenberg Chemical Experiment Station.	Lobositz	Dr. J. Hanamann.
Agricultural Chemical Experiment Station of the Fruit and Grape Culture School.	Marburg	Edm. Schmid.
Experiment Station for Forestry	Mariabrunn	Josef Friedrich.
Agricultural Chemical Experiment Station of the Secondary Agricultural School.	Neutitschein, Moravia	A. Wiener.
Meteorological Station	do	Richard Kienel.
Seed Control and Experiment Station of the State Agricultural Secondary School.	do	Prof. Rich. Hamerak.
Agricultural Chemical Experiment and Seed and Fertilizer Control Station.	Oberhermsdorf, Silesia	Jos. Seifsl.
Experimental Station of Fruit and Grape Growing at the State Institute.	Parenzo, Istria	Dr. Cucovich.
Experimental Laboratory of the Agricultural School.	Pilsen, Bohemia	Kundrat.
Agricultural Chemical and Seed Control Station of the Ministry of Agriculture.	Prague	Dr. J. Nickel.
Experiment Station for Brewing	do	F. Chodounsky.
Experiment Station for the Sugar Industry	do	Prof. Dr. J. Stoklasa.
Experiment Station of the Society for Distilling	do	Karl Kruiis.
Seed Control and Experiment Station of the State Agricultural Secondary School.	Prerau	Johann Vanha.
Chemical Experiment Station	Pressburg	Prof. Dr. J. Lucich.
Laboratory for Investigations on Agricultural Products of the Agricultural Secondary Schools.	Raudnitz, Bohemia	Prof. Alois Mollenda and Prof. Čeněk Zahálka.
Experiment Station for Moor Culture of the Count Hompesch Estate.	Rudnick, Galicia	Emil Koppens.
Central Station of Forestry	Selmeczbanja	
Agricultural School and Experiment Station	S. Michael - on - the Etsch, Tyrol	Prof. Karl Portele.
Agricultural Chemical Experiment Station	Spalato, Dalmatia	Prof. Franz Guozdenović.

Foreign Experiment Stations—Continued.

AUSTRIA-HUNGARY—Continued.

Station.	Location.	Director.
Seed Control Station of the Agricultural High School.	Tabor, Bohemia	Prof. Dr. Fr. Silenský.
Station for the Analysis of Commercial Fertilizers of the State Agricultural High School.	.....do	Prof. Franz Farský.
Agricultural Chemical Experiment Station of the State Agricultural High School.	Tetschen, Bohemia ...	Prof. Aug. Leydhecker.
Experiment Station for Flax Culture.....	Trautenau.....	Ludw. Langer.
Seed Control Station	Troppau, Silesia	Otto Kamberský.
Agricultural Botanical Experiment and Seed Control Station.	Vienna	Dr. Th. v. Weinzierl.
Agricultural Chemical Experiment Stationdo	Dr. F. W. Dafert.
Agricultural High School.....do
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Institute of Animal Industrydo	L. Adametz.
Chemical Technical Experiment Station of the Central Society for the Beet Sugar Industry in the Austrian Empire.do	Friedrich Strohmer.
Experiment Station for Brewing and Malting.....	.....do	Prof. Franz Schwachhöfer.
Society for Promoting Agricultural Experimentation in Austria.	.....do	Prof. Dr. Ad. v. Liebenberg.

BELGIUM.

Chemical Laboratory	Antwerp	D. Crispo.
Agricultural and Hygienic Laboratory	Bruges	Lobau.
Agricultural and Hygienic Laboratory	Courtrai	D'Hondt.
Agricultural Experiment Station.....	Gembloux.....	A. Petermann.
Chemical Laboratory .....	.....do	Ch. Masson.
Chemical Laboratory	Ghent	P. Nyssens.
Provincial Experimental Garden .....	.....do	P. de Caluwe.
Chemical Laboratory	Hasselt	Mercier.
Chemical Laboratory	Liège	De Molinari.
Chemical Laboratory	Louvain	J. Graftiau.
Chemical Laboratory	Mons	Fl. Warsage.
Agricultural Provincial Laboratory	Roulers	J. Van den Berghe.
Agricultural and Hygienic Laboratory	St. Nicolas	Dr. Wodon.

BERMUDAS.

Botanic Station	G. A. Bishop.
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BOSNIA AND HERZEGOVINA.

Station for Fruit and Vine Culture	Dervent
Agricultural Station	Gacko
Agricultural Station	Ilidze .....	.....
Station for Fruit and Vine Culture	Lastva .....	.....
Agricultural Station	Modrić .....	.....
Station for Fruit and Vine Culture	Mostar .....	.....
Agricultural Station	Livno .....	.....

BRAZIL.

Agricultural Station	Campinas	Adolpho B. U. Cavalcanti.
State Agricultural Institute of São Paulo .....	.....do	Gustavo R. P. d'Utra.
Agricultural Experiment Station	Rio de Janeiro	Domingos H. Braune.
Agricultural Institute.....	Itabira-de-Mata-Deutro.	.....
Experimental and Demonstration Field of the Club da Lavoura.	São Carlos, São Paulo.	A. Gomes Carno.
Acclimatization Garden	São Paulo	Carlos Botelho.
Botanic Garden.....	.....do	Alberto Löfgren.
Botanical Garden.....	São Vicente	J. Campos Porto.

BRITISH CENTRAL AFRICA.

Scientific Department	Zomba.....	J. McClounie.
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Foreign Experiment Stations—Continued.

BRITISH EAST AFRICA.

Station.	Location.	Director.
Botanic Garden and Experiment Station.....	Uganda	Alexander Whyte.

BRITISH GUIANA.

Botanic Gardens	Berbice.....	Richard Hunt.
Botanic Gardens	Georgetown, Demerara.	G. S. Jenman.
Sugar Cane Experiments	Prof. J. B. Harrison.

BRITISH HONDURAS.

Botanical Station	Belize	E. Campbell.
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BRITISH WEST INDIES.

Botanic Station	Antigua	W. N. Sands.
Sugar Cane Experiments	do	Francis Watts.
Botanic Station	Bahamas .....	.....
Imperial Department of Agriculture.....	Barbados	D. Morris. ¹
Sugar Cane Experiments	Barbados	J. P. d'Albuquerque.
Botanic Station	Dodd's Reformatory, Barbados.	John R. Bovell.
Botanic Station	Dominica	Joseph Jones.
Botanic Station	Grenada	W. C. Broadway.
Department of Public Gardens and Plantations.....	Kingston, Jamaica	William Fawcett.
Botanic Station	Montserrat	A. J. Jordan.
Botanic Station	St. Kitts-Nevis	William Lunt.
Sugar Cane Experiments	do	Francis Watts.
Botanic Station	St. Lucia	J. C. Moore.
Botanic Garden	St. Vincent	Henry Powell.
Botanic Station	Tobago	Henry Millen. ²
Botanic Gardens	Trinidad	J. H. Hart.
Experiment Station	do	J. H. Hart.
Sugar Cane Experiments	do	J. H. Hart.

BULGARIA.

Experiment Field of the Agricultural School.....	Pleven	B. Manoucheff.
Experiment Field of the Agricultural School.....	Rustchuk	Nikola Batchvaroff.
Experiment Field of the Agricultural School.....	Sadova	Athanase Kablechloff.

CANADA.

Experimental Farm	Compton, Quebec	J. M. Lemoyne.
Fruit Experiment Stations ³	Grimsby, Ontario.....	L. Woolverton.
Ontario Agricultural College and Experimental Farm.	Guelph, Ontario.....	James Mills.
Ontario Agricultural and Experimental Union.....	do	C. A. Zavitz.
Dairy School	Kingston, Ontario.....	J. W. Hart.
School of Agriculture	L'Assomption, Quebec	J. B. Jobin.
University Botanic Garden	Montreal	Prof. D. P. Penhallow.
School of Agriculture	Oka, Quebec.....	G. Boron.
Central Experimental Farm	Ottawa, Ontario	Wm. Saunders. ⁴
Branch Experimental Farm.....	Agassiz, British Columbia.	Thos. A. Sharpe.
Branch Experimental Farm for the Northwest Territories.	Indian Head, Assiniboia.	Angus Mackay.
Branch Experimental Farm for Manitoba.....	Brandon, Manitoba.....	S. A. Bedford.
Branch Experimental Farm for the Maritime Provinces.	Nappan, Nova Scotia.	R. Robertson.
Agricultural School.....	Ste. Anne de la Pocatière, Quebec.	J. Richards.

¹ By special appointment of the British Government, Commissioner D. Morris has been placed in supreme control of all botanical and agricultural work in the West Indies, with the exception that at present he has no direct control of the Botanic Gardens at Jamaica, British Guiana, and Trinidad. He is, however, consulting officer to the governments in regard to these institutions.

² J. H. Hart, supervisor.

³ These comprise 13 stations on private farms in different parts of the province.

⁴ Also director of the 4 branch farms which are in charge of superintendents.

Foreign Experiment Stations—Continued.

CANADA—Continued.

Station.	Location.	Director.
College of Agriculture.....	St. Hyacinthe, Quebec.	E. Castel.
Dairy School.....	Strathroy, Ontario....	Archibald Smith.
Provincial Dairy School.....	Sussex, New Brunswick.	W. W. Hubbard.
Provincial Experimental Farm.....	Truro, Nova Scotia...	F. L. Fuller.
Provincial School of Agriculture.....	.....do.....	H. W. Smith.
Dairy School.....	Winnipeg, Manitoba.	C. C. Macdonald.
School of Horticulture.....	Wolfville, Nova Scotia	F. C. Sears.

CAPE COLONY.

Analytical Laboratory.....	Cape Town.....	Chas. F. Juritz.
Cape Government Herbarium.....	.....do.....	R. MacOwan.
Government School of Agriculture.....	Somerset East.....	J. H. Overman.
Elsenburg School of Agriculture and Viticulture..	Stellenbosch.....	Wm. G. Mason.

CEYLON.

Department of Royal Botanic Gardens.....	.....	John C. Willis.
Botanic Garden.....	Anurādhapura.....	D. F. de Silva.
Botanic Garden.....	Badulla.....	D. D. Fernando.
Botanic Garden.....	Hakgala.....	William Nock.
Botanic Garden.....	Henaratgoda.....	S. de Silva, Arachchi.
Botanic Garden.....	Peradeniya.....	Hugh McMillan.

CHILE.

Agricultural Station and Chemical Laboratory of the Agricultural High School.	Santiago.....	
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CHINA.

Botanical and Afforestation Garden.....	Hongkong.....	Charles Ford.
Botanical Garden.....	Saigon, Indo-China....	Lemarié.

CONGO FREE STATE.

Botanical Garden and Experiment Station.....	Cochinhatville.....	
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DAHOMY.

Experiment Station.....		Teissonnier.
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DENMARK.

Moor Experiment Stations of the Danish Heath Society.	Aarhus.....	Claudi-Westh.
Experiment Station.....	Ascov.....	F. Hansen.
Carlsberg Physiological Laboratory.....	Copenhagen.....	Prof. Dr. E. C. Hansen.
Laboratory of Vegetable Physiology of Agricultural High School.	.....do.....	Prof. W. Johansen.
Carlsberg Chemical Laboratory.....	.....do.....	
Laboratory of Plant Physiology of the University of Copenhagen.	.....do.....	R. Pedersen.
Seed Control Station.....	.....do.....	O. Rostrup.
Chemical Laboratory and Control Station.....	.....do.....	Prof. V. Stein.
Experiment Institute of the Royal Veterinary and Agricultural High School.	.....do.....	F. Friis.
Laboratory of Animal Physiology of Agricultural High School.	.....do.....	Prof. V. Henriques.
Agricultural Laboratory.....	.....do.....	V. Storch.
Experiment Station.....	Lyngby.....	K. Hansen.
Experiment Station.....	Tystofte.....	N. P. Nielsen.
Experiment Station.....	Vester-Hassing.....	A. J. Hansen.

Foreign Experiment Stations—Continued.

EGYPT.

Station.	Location.	Director.
Tewfikieh School of Agriculture.....	Ghizch	Dr. W. C. Mackenzie.

FALKLAND ISLANDS.

Government House Garden.....		Albert Linnaey.
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FIJI ISLANDS.

Botanic Station		Daniel Yeoward.
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FRANCE.

Station for Sericulture.....	Alais	Mozziconacci.
Agricultural Station	Amiens.....	Roget.
Station of Vegetable Physiology of Villa-Thuret ..	Antibes.....	
Agricultural Station	Arras.....	A. Pagnoul.
Agricultural Station	Auxerre.....	A. Nantier.
Agricultural Laboratory	Avignon	Reguis.
Station of Maritime Zoology.....	Banyuls	De Lacaze-Duthiers.
Agricultural Laboratory	Beauvais	Eug. Marie.
Agricultural Laboratory	Béthune.....	Ponnelle.
Agricultural Station	Blois.....	Vezin.
Agricultural Station	Bordeaux.....	U. Gayon.
Irrigation Station.....	Boulogne.....	Canu.
Dairy Station .....	.....do.....	Sauvage.
Agricultural Station	Boulogne sur Mer	Vuafart.
Agricultural Laboratory	Bourg	L. J. Grandvoinet.
Agricultural Station	Bourges	L. Peneau.
Agricultural Station	Caen	M. Louise.
Agricultural Experiment Station.....	Cappelle.....	F. Desprez.
Agricultural Laboratory	Châlons	Doutté.
Agricultural Station	Chartres	C. V. Garola.
Agricultural Station	Châteaufoux	Alla.
Agricultural Station	Clermont-Ferrand	P. Parmentier.
Agricultural Station and Laboratory	Cluny	Bernard.
Agricultural Laboratory	Cognac	A. Baudouin.
Station for Viticulture.....	.....do.....	J. M. Guillon.
Agricultural Laboratory	Commercy	Prudhomme.
Agricultural Station	Dijon	Recoura.
Zoological Station	Endoume.....	A. Marion.
Agricultural Laboratory	Foix	Soula.
Station of Vegetable Physiology	Fontainebleau	G. Bonnier.
Agricultural Laboratory	Granville.....	Laurot.
Agricultural Laboratory	Grignon	P. P. Dehérain.
Laboratory of Animal Physiology	Joinville	Mallèvre.
Agricultural Station	Juvisy	C. Flammariou.
Agricultural Laboratory	Laon	Gaillot.
Agricultural Laboratory	Laval	Leizour.
Agricultural Station	Lézardeaux.....	Patuel.
Agricultural Experiment Station	Lille	A. Dubernard.
Agricultural Station	Lyons	L. Vignon.
Dairy Station	Mamirolle.....	Martin.
Station for Sericulture.....	Manosque.....	Brandi.
Agricultural Laboratory	Marseilles.....	E. Milliau.
Agricultural Station	Melun	A. Vivier.
Station of Vegetable Physiology	Meudon Seine et Oise.....	M. Berthelot.
Agricultural Station	Montpellier	H. Lagatu.
Seed Control Station .....	.....do.....	L. Degrully.
Station for Sericulture.....	.....do.....	Lambert.
Œnological Station .....	.....do.....	Roos.
Station for Viticulture.....	.....do.....	Ravaz.
National School of Agriculture .....	.....do.....	
Agricultural Laboratory	Morlaix	Libert.
Agricultural Station	Nancy	Colomb-Pradcl.
Agricultural Station of the Pasteur Institute.....	Nantes	A. Andouard.
Œnological Station	Narbonne.....	L. Semichon.
Agricultural Laboratory	Nevers	Mancheron.
Agricultural Laboratory	Nîmes	Chauzit.
Œnological Station	Quai de la Fontaine, Nîmes.	E. Kayser.

Foreign Experiment Stations—Continued.

FRANCE—Continued.

Station.	Location.	Director.
Colonial Garden	Nogent-sur-Marne ¹ ...	J. Dybowski.
Dairy Station	Olmet	E. Duclaux.
Agricultural Laboratory	Orléans	Duplessis.
Laboratory for Investigations of Noxious Insects	Paris	Blanchard.
National Agricultural Institute	16 Rue Claude Bern- nard, Paris.	Eug. Risler.
Pheasant Farm	Joinville-le-Pont	
Laboratory of Agricultural Zoology	Paris	
Station of Agricultural Entomology	16 Rue Claude Bern- nard, Paris.	Dr. Paul Marchal.
Laboratory of Fermentations	Paris	Duclaux.
Agricultural Experiment Station of East Paris .....	.....do	Prof. L. Grandeau.
Station of Vegetable Pathology	11 Rue d'Alesia, Paris.	M. Prillieux.
Station for Testing Agricultural Implements	47 Rue Jenner, Paris.	M. Ringelmann.
Station for Testing Seeds	Paris	E. Schribaux.
Agricultural Station	Pétré, Vendée	Vauchet.
Agricultural Station	Poitiers	Roux.
Agricultural Laboratory	Remiremont	Devouges.
Agricultural Station	Rennes	G. Lechartier.
Agricultural Laboratory	Rethel	Contte.
Agricultural Laboratory	La Roches sur Yon	A. Vauchez.
Agricultural Station	Rouen	Houzeau.
Laboratory of Agricultural Entomology .....	.....do	Paul Noel.
Agricultural Laboratory	St. Etienne	Leverrier.
Mathieu de Dombasle Practical School of Agriculture.	Tomblaine, near Nancy.	L. Thiry.
Agricultural Station	Tours	L. Robin.
Agricultural Station	Toulouse	Fabre.
Enological Station .....	.....do	J. Vincens.
Agricultural Laboratory	Valenciennes	Quénot.
Agricultural Laboratory	Versailles	Rivière.
Laboratory of Horticultural Research .....	.....do	Petit.
Station for Viticulture	Villefranche, Rhone..	V. Vermorel.

FRENCH CONGO.

Experiment Station	Libreville	Chalot.
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FRENCH GUIANA.

Botanical Garden	Buduel	Bassière.
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FRENCH GUINEA.

Experiment Station	Konakry	Teissonnier.
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GAMBIA.

Botanic Station	
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GERMAN EAST AFRICA.

Agricultural Experiment Station	Usambara	
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GERMANY.

Seed Control Station of the Agricultural Winter School.	Arendsee, Altmark ...	Dr. P. Herzberg.
Agricultural Chemical Laboratory and Seed Con- trol Station of Schwaben and Neuburg.	Augsburg, Bavaria ...	Dr. M. Hagen.
Agricultural Experiment Station	Bayreuth	

¹ The Colonial Garden at Nogent-sur-Marne, which is also referred to as the Colonial Garden of Vincennes, is a central station that has the direction of the experiment stations recently established in all the French colonies. It furnishes them with seeds and plants, and makes laboratory studies of all agricultural materials sent in by them for the purpose.

Foreign Experiment Stations—Continued.

GERMANY—Continued.

Station.	Location.	Director.
Agricultural High School.....	Berlin.....	
Physical Laboratory.....	do.....	Prof. Dr. R. Börnstein.
Chemical Laboratory.....	do.....	Prof. Dr. E. Buchner.
Division of Mineralogy, Geology, and Soils.....	do.....	Prof. Dr. H. Gruner.
Botanical Institute.....	do.....	Prof. Dr. L. Kny.
Institute for Plant Physiology and Plant Protection.....	do.....	Prof. Dr. Frank.
Botanical Section of the Museum.....	do.....	Prof. Dr. L. Wittmack.
Zoological Division.....	do.....	Prof. Dr. A. Nehring.
Institute of Animal Physiology.....	do.....	Prof. Dr. Zuntz.
Zootechnical Institute.....	do.....	Prof. Dr. C. Lehmann.
Division of Agricultural Soils.....	do.....	Prof. Dr. A. Orth.
Experiment Field.....	do.....	Prof. Dr. A. Orth and Prof. Dr. von Eckenbrecher.
Division of Machines and Models.....	do.....	Prof. F. Schotte.
Seminary of Rural Economics.....	do.....	Prof. Dr. Werner.
Geodetic Institute.....	do.....	Prof. Dr. Vogler.
Institute for Fermentation Industry and Starch Manufacture.....	do.....	Prof. Dr. Max Delbrück.
Division of Distilling.....	do.....	Prof. Dr. Max Delbrück.
Division for Starch Manufacture.....	do.....	Prof. Dr. Saare.
Division of Distilling and Pressed Yeast Manufacture.....	do.....	Dr. Kusserow.
Division of Brewing.....	do.....	
Division of Raw Materials.....	do.....	Prof. Dr. von Eckenbrecher and Dr. Remy.
Chemical Laboratory of the Beet Sugar Makers' Union of Germany.....	do.....	Prof. Dr. A. Herzfeld.
Experiment Station of the German Agricultural Society.....	do.....	Dr. H. Thiesing.
Experiment Station for Milling.....	do.....	Prof. Dr. L. Wittmack.
Agricultural Experiment Station.....	Bernburg, Anhalt.....	Prof. Dr. H. Willarth.
Agricultural Experiment Station.....	Bonn.....	Dr. E. Herfeldt.
Moor Experiment Station.....	Bremen.....	Prof. Dr. Br. Tacke.
Seed Control Station of the Agricultural School.....	Bremervörde, Hanover.....	Carl Gerdes.
Agricultural Botanical Experiment and Seed Control Station.....	Breslau.....	Prof. Dr. E. Eidam.
Agricultural Experiment and Control Station.....	do.....	Prof. Dr. B. Schulze.
Institute for Agricultural Chemistry and Agricultural Bacteriology of the University.....	do.....	Prof. Theodor Pfeiffer.
Institute for Agricultural Plant Production of the University.....	do.....	Prof. Dr. von Rümker.
University Institute of Animal Chemistry.....	do.....	Prof. Dr. H. Weiske.
Experiment Station.....	Brunswick.....	Prof. Dr. Hugo Schultze.
Agricultural Experiment Station.....	Colmar, Alsace.....	Prof. Dr. Max Barth.
Agricultural Experiment Station.....	Dahme, Brandenburg.....	Prof. Dr. R. Ulbricht.
Agricultural Experiment and Seed Control Station.....	Danzig, Prussia.....	Dr. M. Schmoeger.
Experiment Station of the Agricultural Society of Hesse.....	Darmstadt, Hesse.....	Prof. Dr. P. Wagner.
Agricultural Chemical Laboratory.....	Döbeln, Saxony.....	Prof. Dr. W. Wolf.
Chemical and Physiological Experiment Station of the Veterinary High School.....	Dresden.....	Prof. Dr. Ellenberger.
Experiment Station for Plant Culture at Botanical Garden.....	do.....	Prof. Dr. O. Drude.
Experiment Station of the Veterinary High School.....	do.....	
Control Station for Fertilizers, Feeding Stuffs, etc.....	Ebstorf, Hanover.....	Dr. F. Bente.
Chemical Experiment Station.....	Eislein, Saxe-Meiningen.....	
Control Station.....	Eldena, Pomerania.....	Arn. von Homeyer.
School for Pomology and Agricultural Winter School.....	Friedberg.....	Dr. von Peter.
Dairy Experiment Station of Dairy School.....	Fulda, Hesse-Nassau.....	R. Backhaus.
Institute for Pomology, Viticulture, and Horticulture. ¹	Geisenheim-on-the-Rhine.....	R. Goethe.
Station for the Utilization of Fruit.....	do.....	R. Mertens.
Station for the Breeding of Grapes.....	do.....	Fr. Zweiffer.
Experiment Station for Plant Physiology.....	do.....	Prof. Dr. Julius Wortmann.
Experiment Station of Applied Chemistry.....	do.....	Dr. P. Kulisch.
Meteorological Observation Station.....	do.....	Dr. Christ.
Ludwig University.....	Glessen.....	
Agricultural Institute.....	do.....	Prof. Albrecht Thaer.
Forestry Institute.....	do.....	Prof. Richard Hess.
Agricultural Experiment Station.....	Göttingen.....	Prof. Dr. F. Lehmann.
Control Station for Fertilizers, Feeding Stuffs, etc.....	do.....	Dr. G. Kalb.
Laboratory and Experimental Field of the University Agricultural Institute.....	do.....	Prof. Dr. C. v. Seelhorst.
Agricultural Chemical Experiment Station of the Department of Agriculture.....	Halle-on-the-Salle....	Prof. Dr. Max Maercker.

¹ Many agricultural investigations are carried on at this institution itself besides those made at the following stations, which are attached to it.

Foreign Experiment Stations—Continued.

GERMANY—Continued.

Station.	Location.	Director.
Experiment Station for Plant Protection of the Department of Agriculture.	Halle-on-the-Salle....	Prof. Dr. M. Hollrung.
Physiological Laboratory, Experimental Field and Zoological Garden for Domestic Animals of the Agricultural Institute of the University.	.....do.....	Prof. Dr. J. Kühn.
Agricultural Botanical Experiment Station.	Hamburg	Dr. Oscar Burchard.
Botanical Museum and Laboratory for Commercial Products.	.....do.....	Prof. Dr. Sadebeck.
Seed Control Division.	.....do.....	Dr. A. Voigt.
Division for Plant Protection.	.....do.....	C. Brück.
Agricultural Experiment Station for the Study of Plant Growth.	Hamburg-Horn	Dr. Ullman.
Dairy Investigation and Experiment Station.	Hameln	Dr. P. Vieth.
Veterinary High School.	Hanover	Dr. Dammann.
Institute of Anatomy.	.....do.....	Dr. H. Boether.
Institute of Physiology.	.....do.....	Dr. Josef Tereg.
Chemical Institute.	.....do.....	Dr. Karl Arnold.
Pathological Institute.	.....do.....	Dr. Adam Olt.
Agricultural Experiment Station.	Hildesheim	Dr. C. Aumann.
Agricultural Institute.	Hohenheim	Ernst V. Strebel.
Agricultural Chemical Experiment Station.	.....do.....	Prof. Dr. A. Morgen.
Seed Control Station.	.....do.....	Prof. Dr. O. Kirchner.
Institute of Technology.	.....do.....	Prof. Dr. Paul Behrend.
Experiment Station for Fermentation Industries, etc.	.....do.....	Do.
Station for Testing Agricultural Implements.	.....do.....	Prof. Karl Fruwirth.
Fish Breeding Station.	.....do.....	Prof. Dr. Hermann Sieglin.
Agricultural Experiment Station.	Isterburg, Prussia ..	Dr. W. Hoffmeister.
Agricultural Chemical Laboratory of the University.	Jena.....	Dr. Immeuhoff.
Agricultural Physiological Laboratory of the University.	.....do.....	Prof. Wilhelm Edler.
University Experiment and Control Station.	.....do.....	Prof. Dr. H. Settegast.
Agricultural Chemical Laboratory.	Kappeln, Schleswig-Holstein.	
Agricultural Botanical Experiment Station.	Karlsruhe, Baden	Prof. Dr. L. Klein.
Agricultural Chemical Experiment Station.	.....do.....	Prof. Dr. J. Nessler.
Agricultural Chemical Experiment Station.	Kempen-on-the-Rhine.	Dr. Gottfr. Fassbender.
Agricultural Chemical Experiment Station.	Kiel	Prof. Dr. A. Emmerling.
Experiment Station for Dairying.	.....do.....	Dr. H. Weigmann.
Seed Control Station.	.....do.....	Prof. Dr. H. Rodewald.
Experiment Station for Feeding Investigations.	.....do.....	Dr. C. Reese.
Experiment Station and Dairy Institute.	Kleinhof-Tapiau, Prussia.	Dr. K. Hittcher.
Agricultural Experiment Station.	Königsberg, Prussia ..	Prof. Dr. G. Klien.
Dairy Laboratory of the University Agricultural Institute.	.....do.....	Prof. Dr. Alex. Backhaus.
Agricultural Experiment and Seed Control Station.	Köslin, Pomerania....	Dr. P. Baessler.
Experimental Farm of the Chamber of Agriculture of the Province of Saxony.	Lauchstädt	Prof. Dr. M. Maereker.
Agricultural Institute of the University.	Leipzig	Wilhelm Kirchner.
Veterinary Institute of the University.	.....do.....	Professor Eber.
Botanic Garden for Economic Plants and Experimental Field of the Agricultural School.	Liegnitz	Dr. Wübbe.
Agricultural Chemical Experiment and Seed Control Station.	Marburg, Hesse-Nassau.	Prof. Dr. Th. Dietrich.
Dairy Laboratory of the Central Dairy Station.	Mecklenburg-Schwerin.	Johs. Siedel.
Agricultural Experiment Station.	Möckern, Saxony....	Prof. Dr. O. Kernner.
Laboratory for Forestry Chemistry of the Forestry Academy.	Münden, Hanover	Prof. Dr. R. Hornberger.
Agricultural Experiment Station.	Munich.....	Dr. E. Haselhoff.
Central Agricultural Experiment Station.	.....do.....	Prof. Dr. Franz Soxhlet.
Forestry Station and Experimental Garden of the University.	.....do.....	
Laboratory for Agricultural Physics and Physiology.	.....do.....	Prof. Dr. E. Wollny.
Station for Scientific Brewing.	.....do.....	
Agricultural Experiment Station.	Münster, Westphalia ..	Prof. Dr. J. König.
Dairy Experiment Station of the Association of Hessian Agricultural Societies.	Offenbach	Dr. J. Uhl.
Experiment and Control Station.	Oldenburg	Dr. P. Petersen.
Experiment Station.	Pommritz, Saxony....	Prof. Dr. G. Loges.
Agricultural Experiment Station of the Agricultural Academy.	Poppelsdorf, near Bonn.	Prof. Dr. F. Kreusler.
Institute of Animal Physiology of the Agricultural Academy.	Poppelsdorf, near Bonn.	Prof. Dr. Osc. Hagemann.
Agricultural Experiment Station.	Posen, Prussia.....	Dr. M. Gerlach.
Dairy Institute.	Proskau, Prussia	Dr. J. Klein.
Experiment Station for Plant Physiology of the Pomological Institute.	.....do.....	Prof. Dr. R. Stoll.

Foreign Experiment Stations—Continued.

GERMANY—Continued.

Station.	Location.	Director.
Experiment Station.....	Rostock, Mecklenburg-Schwerin.	Prof. Dr. R. Heinrich.
Flax Culture Station of the Royal Prussian Department of Commerce.	Sorau.....	Alois Herzog.
Agricultural Experiment Station.....	Speyer, Bavaria	Dr. A. Halenke.
Experimental Forest of the Academy of Forestry :	Tharandt, near Dresden.	Dr. F. Nobbe.
Station for Plant Physiology and Seed Control	do	Do.
Agricultural Experiment Station	Triesdorf, Bavaria	Prof. Dr. Ph. Schreiner.
Forestry Experiment Station of the University.....	Tübingen, Württemberg.	Prof. von Lorey.
Academy of Agriculture and Brewing.....	Weihenstephan, Bavaria.	Prof. Dr. C. Kraus.
Chemical Laboratory	do	
Laboratory of Agricultural Chemistry and Dairying.	do	Prof. Dr. Stellwaag.
Laboratory for Microscopy and Pure Yeast Cultures.	do	
Soil Laboratory	do	Dr. Puchner.
Seed Laboratory	do	Do.
Laboratory of Machinery Technique	do	Professor Ganzenmüller.
Experiment Institutes for Brewing and Distilling.	do	Dr. Bücheler.
Garden for Economic Botany and Testing Varieties of Hops.	do	
Experiment Field	do	
Experiment Brewery	do	
Viticultural Experiment Station	Weinsberg, Württemberg.	Dr. J. Behrens.
Agricultural Chemical Experiment Station	Wiesbaden, Hesse-Nassau.	Prof. Dr. H. Fresenius.
Dairy Institute.....	Wreschen, Posen	Dr. H. Tiemann.
Agricultural Experiment Station.....	Würzburg, Bavaria	Dr. Th. Omeis.
Experiment Station for Grape Growing and Inspection of Foods.	do	

GOLD COAST.

Botanic Gardeus.....	Aburi.....	W. H. Johnson.
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GREAT BRITAIN.

ENGLAND.		
Agricultural College.....	Aspatia (Carlisle)....	J. Smith Hill.
Agricultural Experiment Station of Royal Agricultural Society, of England, Woburn Experimental Farm.	Aspley Guise, R. S.O., Beds.	Dr. J. A. Voelcker.
Bath and West and Southern Counties Society	4 Terrace Walk, Bath.	Sir C. T. D. Acland.
University Botanic Garden	Cambridge	Prof. H. Marshall Ward.
Cambridge and Counties Agricultural Education Committee.	Catus College, Cambridge.	T. B. Wood.
Cambridge University Agricultural Department ..	Cambridge	W. Somerville.
Essex Technical Laboratories, Essex County Council.	Chelmsford	David Houston.
Royal Agricultural College and Farm	Cirencester	Prof. E. Kinch.
College of Agriculture	Downton, Salisbury ..	Professor Wrightson.
Agricultural and Horticultural School, Cheshire County Council.	Holmes Chapel	Edric Druce.
Agricultural Committee, Cornwall County Council.	Kernock, St. Mellion..	W. Hawk.
Royal Botanic Gardens	Kew, London.....	Sir W. T. Thiselton-Dyer.
Midland Dairy Institute College, Nottingham	Kingston Fields, Derby.	M. J. R. Dunstan.
Yorkshire College.....	Leeds	
Department of Botany, University of London	London.....	Prof. J. Reynolds Green.
Government Laboratory of Board of Agriculture..	do	T. E. Thorpe.
Durham College of Science	Newcastle-upon-Tyne ..	H. P. Gurney.
Botanical Department, Royal Agricultural Society of England.	Norwood	Wm. Carruthers.
University College.....	Nottingham	M. J. R. Dunstan.
University Botanic Garden	Oxford	S. H. Vines.
University Extension College	Reading	Douglas A. Gilchrist.
Agricultural Experiment Station.....	Rothamsted	Sir Henry Gilbert.
Horticultural College	Swanley, Kent.....	

Foreign Experiment Stations—Continued.

GREAT BRITAIN—Continued.

Station.	Location.	Director.
ENGLAND—continued.		
East Sussex Agricultural College	Uckfield	W. J. Malden.
Wilt's Technical Education Committee	Warminster	E. S. Beaven.
Dawntsey's Agricultural School	West Lavington, De- vizes.	F. W. Long.
Somerset County Education Committee	5 Sydney Terrace Bou- levard, Weston- super-Mare.	C. H. Bothamley.
Woburn Experimental Fruit Farm	Woburn	Spencer Pickering. ¹
Southeastern Agricultural College.....	Wye, near Ashford, Kent.	A. D. Hall.
IRELAND.		
Chemico-Agricultural Society of Ulster.....	Belfast.....	Prof. John F. Hodges.
Royal Dublin Society (carries on experiments on different selected estates).	Kildare street, Dublin.	Rt. Hon. Lord Ardilavna.
Chemical Laboratory Glasnevin Agricultural Col- lege.	Dublin	Professor Carroll.
Irish Agricultural Organization Society	do	H. C. Sheringham.
Botanic Gardens	Glasnevin, Dublin.	F. W. Moore.
Dairy School and Albert Model Farm	do	
Trinity College Botanic Gardens	do	E. Percival Wright.
SCOTLAND.		
Agricultural Laboratory Marischal College, Aber- deen University.	Aberdeen.....	James Hendrick.
Agricultural Research Association of the North- eastern Counties (carries on experiments at suitable farms).	Glasterbury, Aber- deen.	Thos. Jamieson.
Experiment Station of the Royal Highland and Agricultural Society of Scotland.	Pumpherston, Edin- burgh.	Dr. A. P. Aitken.
Seed Control of the Highland and Agricultural Society of Scotland.	do	Dr. McAlpine.
Botanic Garden	do	Isaac Bayley Balfour.
The Glasgow and West of Scotland Technical College.	Glasgow and Kilmar- nock. ²	R. Patrick Wright.
Botanic Gardens	Glasgow	F. O. Bower.
Stewartry of Kirkcudbright Dairy Association ...	Kirkcudbright	J. R. Campbell.
WALES.		
Agricultural Department, University College of Wales.	Aberystwyth	Prof. T. Parry.
University College of North Wales.....	Bangor	Prof. Thos. Winter.

GUADELOUPE.

Agricultural Chemical Station.....	Elot.
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HOLLAND.

North Holland Horticultural Demonstration Field.	Aalsmeer	J. G. Hazeloop.
Wille Commelin Scholten Phyto-Pathological Laboratory.	Amsterdam	J. Ritzema Bos.
Overijssel Demonstration and Experiment Fields.	Deventer	S. Koenen.
Government Agricultural Experiment Station	Goes	Dr. A. J. Swaving.
Zeeland Demonstration and Experiment Fields.....	do	I. G. J. Kakebeeke.
South Holland Demonstration and Experiment Fields.	's Gravezande	U. J. Mausholt.
Government Agricultural Experiment Station	Groningen.....	Dr. B. Sjollem.
Groningen Demonstration and Experiment Fields.	do	J. Heidema.
North Brabant Demonstration and Experiment Fields.	's Hertogenbosch.....	P. van Hoek.
Drenthe Demonstration and Experiment Fields ..	Hoogeveen	J. Elema.
Bacteriological Section of the Agricultural Exper- iment Station.	Hoorn	F. W. J. Boekhout.
Government Agricultural Experiment Station	do	
Horticultural Experiment Field.....	Kolham	Dr. K. H. M. Van der Zande.
Experimental Garden of the Frisian Horticultural Union.	Leeuwarden	P. C. Van Calear.
Friesland Agricultural Demonstration Field	do	J. Postma.
		C. R. Brinkman.

¹ Director's address, Harpenden, Herts.² College at Glasgow, Dairy School and Experiment Station at Kilmarnock.

Foreign Experiment Stations—Continued.

HOLLAND—Continued.

Station.	Location.	Director.
Government Agricultural Experiment Station	Maastricht	Dr. J. J. L. Van Rijn.
Experiment Field of the "Agricultural Instruction" Union.	Middelharnis.....	M. W. V. Van Bijleveld.
South Holland Horticultural Demonstration Field.	Naaldwijk.....	C. H. Claassen.
Moor Experiment Station.....	Nieu-Buinen.....	F. Schuurman.
North Holland Demonstration and Experiment Fields.	Schagen.....	C. Nobel.
Limborg Agricultural Demonstration Field.....	Sittard.....	F. R. Corten.
Potato Culture Experiments of the Frisian Agricultural Company.	Suameer.....	K. L. De Vries.
Union for Establishing and Maintaining the Pomological Garden.	Tiel	H. N. S. C. Van der Sijp.
Utrecht Demonstration and Experiment Fields....	Utrecht.....	H. D. S. Hasselman.
Central Agricultural Experiment Station	Wageningen	Prof. Dr. Adolph Mayer.
Gelderland Demonstration and Experiment Fields.	do	H. Mayer Gmelin.
Government Seed Control Station	do	F. F. Bruijning, jr.
Experiment Field of the Gerard Adriaan Van Swieten Agricultural School.	Willemsoord	A. A. Neeb.

INDIA.

Taj Garden	Agra, Northwest Provinces.	A. E. P. Griffesen.
Botanic Garden	Allahabad, Northwest Provinces.	H. J. Davies.
Botanical Gardens.....	Bangalore, Mysore...	J. Cameron.
Botanic Garden	Baroda	G. H. Krumbiegel.
Office of Secretary to Government ¹	Bombay	J. W. P. Muir-Mackenzie.
Municipal Garden	do	C. D. Mahaluxmivala.
Department of Land Records and Agriculture ² ..	Calcutta	George Watt.
Reporter of Economic Products to the Government.	do	F. Lancaster.
Agri-Horticultural Society of India	do	G. H. T. Mayer.
Botanic Gardens.....	Cawnpore, Northwest Provinces.	Herbert Thorn.
Maharajah's Garden.....	Darbhanga, Bengal.	W. A. Kennedy.
Lloyd Botanic Garden	Darjeeling, Bengal ..	N. N. Banerjee.
Experimental Farm	Dumraon, Bengal	P. G. Kanitkar.
Botanic Garden	Ghorpuri, Bombay	J. E. Weston.
Cawnpore Experimental Farm	Gotaia, Northwest Provinces and Oudh.	C. Maries.
Botanic Garden	Gwalior	F. M. Khabbatta.
Experimental Farm	Hyderabad, Sind	Jas. Mollison.
Municipal Garden	Karachi	F. W. Seers.
Government Farm.....	Kirkee, Bombay Presidency.	H. G. Heiu.
Botanic Garden.....	Kumaon (Ramghur), Northwest Provinces.	M. Ridley.
Botanic Garden.....	Lahore, Punjab	A. G. Bourne.
Agricultural Experiment Station.....	"Lashio" N. Shan States, Burma.....	Joseph Beck.
Horticultural Garden	Lucknow	D. Prain.
Agri-Horticultural Society.....	Madras	R. H. Craddock.
Botanic Garden	Morvi	J. H. Stephen.
Government Cinehona Plantations.....	Mungpoo, Bengal.....	C. A. Barber.
Experimental Station	Nadiad	N. N. Banerjee.
Experimental Farm	Nagpur, Central Provinces.	J. W. P. Muir-Mackenzie.
Horticultural Gardens.....	do	P. S. Kanethar.
Botanic Department	Ootacumund, Madras.	J. F. Duthie.
Burdwan Experimental Farm	Pala, Bengal.....	W. Gollan.
Experimental Station	Poona, Bombay Presidency.	W. Kees.
Empress Botanic Gardens.....	do	L. J. Kershaw.
Botanical Department, Northern India.....	Saharanpur, Northwest Provinces.	W. Gollan.
Botanical Gardens	do	W. Kees.
Madras College of Agriculture.....	Saidápet.....	L. J. Kershaw.
Division of Crop Experiments of Department of Land Records and Agriculture.	Shillong, Assam	B. C. Basu.
Experimental Farm	Sibpur, Bengal	D. Prain.
Department of Royal Botanic Gardens	do	J. W. P. Muir-Mackenzie.
Government Farm.....	Surat, Bombay Presidency.	

¹ Under the direction of this office, field experiments are carried on at a number of places in Bombay Presidency.

² This Department supervises numerous field experiments in different parts of Bengal.

Foreign Experiment Stations—Continued.

INDIA—Continued.

Station.	Location.	Director.
Division of Experimental Cultivation in the Southern Shan States.	Taunggyi.....	A. H. Hildebrand.
Botanic Gardens.....	Travancore (Trivandrum).	
Botanic Gardens.....	Udaipur.....	T. H. Storey.

ITALY.

Enological Station.....	Asti.....	Professor Comboni
Agricultural Chemical Laboratory.....	Bologna.....	Prof. Ad. Casali.
Agricultural Chemical Laboratory.....	Caserta.....	Prof. E. Cassoria.
Agricultural Experiment Station.....	Florence.....	Prof. E. Bechi.
Entomological Station.....	do.....	Prof. Targioni Tozzetti.
Agricultural Chemical Experiment Station.....	Forli.....	Prof. Dr. Aless. Pasqualini.
Agricultural Experiment Station.....	do.....	Prof. Dr. Aless. Pasqualini.
Experiment Station for Cheese Making.....	Lodi.....	Prof. Carlo Besana.
Agricultural Chemical Experiment Station.....	Milan.....	Prof. A. Menozzi.
Agricultural Experiment Station.....	Modena.....	Prof. Gino Cugini.
Sericultural Station.....	Padua.....	Prof. Dr. Enrico Verson.
Agricultural Institute and Garden and Museum of Agricultural Models and Implements.	do.....	Antonio Keller.
Agricultural Chemical Experiment Station.....	Palermo.....	Prof. Dr. A. Bornträger.
Cryptogamic Laboratory.....	Pavia.....	Prof. Giov. Briosi.
Agricultural Chemical Laboratory.....	Perugia.....	Prof. Gius. Bellucci.
Agricultural Experimental Institute.....	do.....	Eugenio Faina.
Agricultural Chemical Laboratory.....	Pesaro.....	Prof. Dr. T. Dupré.
Agricultural Chemical Laboratory.....	Pisa.....	Prof. Fausto Sestini.
Agricultural Laboratory of the University.....	do.....	Girolamo Caruso.
Entomological Laboratory.....	Portici, near Naples	
Experiment Station for Vegetable Pathology.....	Rome.....	Prof. G. Cuboni.
Agricultural Chemical Experiment Station.....	do.....	Emanuel Paterno.
Agricultural Chemical Laboratory.....	Siena.....	Prof. C. Giannetti.
Agricultural Chemical Experiment Station.....	Turin.....	Dr. M. Zecchini.
Agricultural Chemical Experiment Station.....	Udine.....	Prof. G. Nallino.

IVORY COAST.

Experiment Station.....	Dabou.....	Teissonnier.
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JAPAN.

Central Agricultural Experiment Station.....	Nishigahra, near Tokio.	Dr. J. Sawano.
Tokai Branch Station.....	Anjo-mura, Aichi-ken	Dr. S. Machida.
Sanyo Branch Station.....	Gion-mura, Hiroshima-ken.	Dr. S. Shinjo.
Riku-u Branch Station.....	Hanada-te-mura, Akita-ken.	Dr. T. Onda.
Kinsin Branch Station.....	Idzumi-mura, Kumamoto-ken.	Dr. Y. Otzuka.
San-in Branch Station.....	Ima-ichi, Izumo.....	Dr. S. Kikkawa.
Shikoku Branch Station.....	Kanomyo-mura, Tokushima-ken.	Dr. T. Yamanak.
Kinai Branch Station.....	Kasbiwabara-mura, Osaka-fu.	Dr. K. Okada.
Hokuroku Branch Station.....	Matsuto-machi, Ishikawa-ken.	Dr. Y. Kagami.
To-o Branch Station.....	Magasaki-mura, Miyagi-ken.	Dr. K. Ushimura.
Hogoken Agricultural Experiment Station.....	Akashigun, Harima..	
Fukushimaken Agricultural Experiment Station.....	Asakagun, Iwashiro..	
Kiotofu Agricultural Experiment Station.....	Atagigun, Yamashiro	
Duke Matsudaira's Agricultural Experiment Station.	Fukui, Yechizen-ken.	
Toyamaken Agricultural Experiment Station ¹	Fukunomae-hi, Yetchu.	
Fukuokaken Agricultural Experiment Station.....	Near Fukuoka.....	
Yamagataken Agricultural Experiment Station....	Higashi Yamagatagun, Iwashiro.	
Nagasakiken Agricultural Experiment Station.....	Hizen.....	
Kumamotoken Agricultural Experiment Station....	Jinnai, near Kumamoto.	
Hiroshimaken Agricultural Experiment Station ² ..	Kamogun, Aki.....	

¹ Has a branch station.² Has two branch stations.

Foreign Experiment Stations—Continued.

JAPAN—Continued.

Station.	Location.	Director.
Akitaken Agricultural Experiment Station.....	K a w a b e g u n, near Akita.	G. Mastunaga.
Sericulture Institution.....	Kinngasa, near Kioto.	
Gumbaken Agricultural Experiment Station.....	Near M a y e b a s h i, Kôdzuke.	
Naganoken Agricultural Experiment Station.....	Near Nagano, Shinano.	
Niigataken Agricultural Experiment Station.....	Nagooka, Yechigo....	Dr. J. Sawano.
Naraken Agricultural Experiment Station.....	Near Nara, Yamato ..	
Tokio Sericultural Institution	Nishigahra, near Tokyo.	
Shigaken Agricultural Experiment Station	Near Ôtsu, Omi.....	
Count Hotta's Agricultural Experiment Station...	Sakura, Shimôsa-ken.	Dr. T. Yoshii.
Agricultural-Chemical Laboratory of Agricultural Academy.	Sapporo	
Aichiken Agricultural Experiment Station.....	Terano-mura, near Nagoya.	
Miyeken Agricultural Experiment Station	Tsu, Ise.....	
Tochigiken Agricultural Experiment Station	Utsunomiya, Shinôdzuke.	
Count Tachibana's Agricultural Experiment Farm.	Yanagawa, Chikugo..	
Shimaneken Agricultural Experiment Station ¹ ...	Yatsukagun, Idzumo.	
Kanagawaken Agricultural Experiment Station ..	Near Yokohama.....	
Yamaguchiken Agricultural Experiment Station ..	Yamaguchi, Yamaguchiken, Y. Yamana-ka.	
Aichiken Agricultural Experiment Station.....	Kiyosu, Owari.....	

JAVA.

Botanic Station ²	Buitenzorg	Dr. M. Treub.
West Java Sugar Cane Experiment Station.....	Kagok-Tegal	H. C. Prinsen-Geerligs.
East Java Sugar Cane Experiment Station	Pasoeroean	J. D. Kobus.

LAGOS.

Botanic Station
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MADAGASCAR.

Experiment Stations.....	Prudhomme.
Experiment Station.....	Nahanisana, near Tananarivo.	Fauchère.

MALAY STATES.

Experimental Plantations .....	.....	Stanley Arden.
Government Gardens and Plantations.....	Perak (Taiping).....	Robert Derry.

MALTA.

Sant' Antonio Gardens .....	.....	John Borg.
Argotti Botanic Garden.....	Dr. Francesco Debono.

MARTINIQUE.

Botanic Garden.....	Saint Pierre	Nollet.
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¹ Has two branch stations.² This institution has ten departments for experimental work, including stations for investigations on tobacco, tea, coffee, etc.

Foreign Experiment Stations—Continued.

MAURITIUS.

Station.	Location.	Director.
Botanic Gardens.....	Curepipe.....	F. Bijoux.
Department of Forests and Botanic Gardens.....	Pamplemousses.....	J. Vankeirsbilck
Agricultural Station.....	Reduit.....	P. Boname.
Botanic Gardens.....	.....do.....	W. A. Kennedy.

NATAL.

Botanic Gardens.....	Durban.....	John Medley Wood.
Botanic Gardens.....	Pietermaritzburg.....	G. Mitchell.

NEW ZEALAND.

Colonial Botanic Garden.....	Auckland.....	William Goldie.
Colonial Botanic Garden.....	Christchurch.....	Ambrose Taylor.
Colonial Botanic Garden.....	Dunedin.....	J. McBean.
Colonial Botanic Garden.....	Invercargill.....	Thomas Waugh.
Canterbury Agricultural College.....	Lincoln.....	J. Bayne.
Government Experimental Station.....	Momohaki, Waverly.....	F. Gillanders.
Colonial Botanic Garden.....	Napier.....	W. Barton.
Colonial Botanic Garden.....	Wellington.....	G. Gibb.
Department of Agriculture ¹.....	.....do.....	J. D. Ritchie.

NORWAY.

Botanical Experiment Station of the Agricultural High School.....	Aas.....	Bastian R. Larsen.
Chemical Laboratory of the Agricultural High School.....	.....do.....	J. Sebelien.
Milk Control Station.....	Bergen.....	H. Lundgren.
Veterinary Pathological Institute.....	Christiania.....	Dr. O. Malm.
Agricultural Chemical Control Station.....	.....do.....	.....
Seed Control Station.....	.....do.....	Miss C. Steen.
Milk Control Station.....	.....do.....	H. Olsen.
Seed Control Station.....	Hamar.....	Jon Reid.
Entomological Laboratory.....	Nordstrand, near Christiania.....	Wilhelm Maribo Schøyen.
Agricultural Chemical Control Station.....	Trondhjem.....	Dr. E. Solberg.
Seed Control Station.....	.....do.....	K. Schøyen.
Milk Control Station.....	.....do.....	Th. Soelberg.

PARAGUAY.

School of Agriculture and Model Farming.....	Asunción.....	Moises S. Bertoni.
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PORTUGAL.

Agricultural Experiment Station.....	Coimbra.....	Ant. Aug. Baptista.
Agricultural Experiment Station.....	Evora.....	Antonio Gomes Ramalho.
Agricultural Experiment Station.....	Lisbon.....	Ramiro Larcher Marçal.
Chemical Laboratory for the Inspection of Wines and Oils.....	.....do.....	Amando de Seabra.
Agricultural Experiment Station.....	Porto.....	Palma de Vilhena.

RéUNION.

Botanic Garden.....	St. Denis.....	E. Grimley.
Chamber of Agriculture.....	.....do.....	A. de Villèle.

ROUMANIA.

Agricultural Experiment Station.....	Bucharest.....	Cornelius Roman.
Chemical Laboratory and Experiment Station for Tobacco Culture.....	.....do.....	Dr. Maximilian Popovici.

¹ The New Zealand Department of Agriculture conducts numerous experiments on leased land in different parts of the island.

Foreign Experiment Stations—Continued.

RUSSIA.

Station.	Location.	Director.
Agricultural Chemical and Seed Control Station of the Imperial Finnish Agricultural Society.	Åbo, Finland	Dr. Ernst Löthner.
Nursery of Grapevines	Aleshki, Govt. Taurida	
Nursery for Olive Trees	Arutvna, Govt. Kutais.	
Bogar Experiment Fields	Govt. Ashkabad, Trans-Caspian Region.	
Laboratory of the Ministry of Fish and Seal Industries.	Astrakhan	
Agricultural Experiment Station	Estate Tolstoi, Bogodukhov, Govt. Orel.	
Vuisokolitovsk Experiment Field	Brest, Govt. Gradno	Teitel.
Experiment Field	Buguruslan, Govt. Samara.	
Experiment Field of the Society for Agriculture and Agricultural Industries.	Estate Novotavolzhanka, Byelgorod, Govt. Kursk.	
Uyutnoe Experiment Field	Dmitriev, Govt. Kursk	
Batishchevo Agricultural Experiment Station	Dorogobush, Govt. Smolensk.	R. A. Djakonow.
Bacteriological Station of Ekaterinoslav Government Zemstvo.	Ekaterinoslav	
Velikoanodalsk Experiment Forest on the Watershed between the Dnieper and Donetz.	Govt. Ekaterinoslav ..	
Asanov Experiment Field	Elabug, Govt. Vyatka.	
Experiment Field of the Agricultural Society	Eletz, Govt. Orel	
Agricultural Experiment Station	Estate Sobyeshin, Garvolonsk, Govt. Syedietz, Poland.	
Experiment Field	Glazov, Govt. Vyatka.	
Experiment Station of the Agricultural School	Gorki, Govt. Mogilev.	
Flax Culture Station	Gorodishche, Govt. Kostroma.	
Agricultural and Industrial Chemical Experiment Station.	Helsingfors, Finland ..	
Experiment Field of the Northern Agricultural Society.	Ilinskoe, Govt. Novgorod.	
Agricultural Experiment Station with Seed Testing and Meteorological Station.	Ivangrod	A. Sempolovski.
Experiment Field	Kaehanov	Kartzov.
Experiment Field	Karais, Tiflis	
Experiment Cotton Field	Karayazi, Govt. Tiflis.	
Agricultural Institute of the University	Kazan	V. I. Sorokin
Bacteriological Station of the Veterinary Institute.	.....do	
Experiment Field	Khabarovsk, Govt. Maritime, Siberia.	Gagin.
Experiment Field	Khakanovsk, Govt. Terek, Caucasus.	
Agricultural Laboratory of the Imperial University.	Kharkov	A. G. Zajkevič.
Bacteriological Station of the Veterinary Institute.	.....do	
Experiment Station of the Agricultural School .....	.....do	
Experiment Field of the Agricultural School	Kherson	
Experiment Forest on the Watershed between the Volga and the Don.	Khryenov, Govt. Voronezh.	
Agricultural Institute of the University	Kiev	S. M. Bogdanov.
Seed Control Station and Chemical Laboratory of the South-Russian Society for Promoting Agriculture and Rural Industries.	.....do	
Seed Control Station of the Society of Agriculture and Agricultural Industries.	.....do	J. Bardsilevski.
Technical Laboratory of the Kiev Section of the Russian Technical Society.	.....do	
Experiment Station of the Schools of Wine Making.	Kishinev, Govt. Bessarabia.	N. G. Kotelnikov.
Experiment Field of the Klin Zemstvo	Estate Krasni Kholm, Klin.	
Experiment Field	Klyuehi	
Buzov Experiment Field	Kotelnich, Govt. Vyatka.	
Buzinovsk Nursery of Grapevines	Kuchurgan, Govt. Kherson.	
Experiment Field	Kungura	
Bacteriological Station of the Kursk Government Zemstvo.	Kursk	
Experiment Cotton Field	Kutais	
Sakarsk Nursery of American Vines	Kvirila, Govt. Kutais.	
Ashkabad Experiment Cotton Field	Kyoshi, Trans-Caspian Region.	
Station for Seed Selection and Experiment Field of the Pliskovo Beet Sugar Factory.	Lipovetz, Govt. Kiev ..	

Foreign Experiment Stations—Continued.

RUSSIA—Continued.

Station.	Location.	Director.
Experiment Tobacco Plantation.....	Lokhvitz, Govt. Pskov.	P. Lomonosov.
Experiment Field	do	
Agricultural Experiment Station.....	P. A. Bilderling's Estate Zapole, Luga, Govt. St. Petersburg.	J. J. Sokhotski.
Signakh Experiment Tobacco Plantation	Matnaari, Govt. Tiflis, Caucasus.	Enfiadzanetz.
Agricultural Experiment Station.....	Antonine Estate, Medtzi, Govt. Volynsk.	
Experiment Cotton Field	Merv, Trans-Caspian Region.	
State Bacteriological Institute.....	do	
Experiment Field of the Economic Society.....	Matava, Govt. Courland.	
Experiment Station.....	Estate Nemerehe, Mogilev, Govt. Podolsk.	
Agricultural Institute	Moscow	Konstantin Aleksandrovie Raevsky.
Chemical Laboratory	do	
Agricultural Laboratory.....	do	
Meteorological Observatory	do	
Agricultural Experiment Station.....	do	
Agricultural Laboratory of the University.....	do	A. N. Sabanin.
Experiment Station of the Agricultural Institute.....	do	
Bacteriological Agricultural Station of the Imperial Russian Society for the Acclimatization of Animals and Plants.	Estate of V. K. Ferrein, Moscow.	S. Severin.
Biological Laboratory of the Agricultural School.	Moscow	
Experiment Field of the Agricultural Institute.....	do	R. W. Williams.
Experiment Field	Murashkino, Govt. Nizhni Novgorod.	E. F. Gorlitski.
Agricultural and Dairy Institute	Mustiala, Finland	Dr. Gösta Grotenfelt.
Agricultural Chemical Laboratory.....	do	Prof. Dr. A. Rindell.
Experiment Vineyard of the Nicolaev Section of the Imperial Russian Society of Horticulture.	Nicolaev, Govt. Kherson.	
Experiment Station of the Maria Agricultural School.	Nikolaevskoe, Govt. Saratov.	
Churakov Experiment Field	Nolinsk, Govt. Vyatka	
Verkhovshetsk Experiment Field.....	do	
Laboratory of Vegetable Physiology of the Agricultural and Forestry Academy.	Novo-Alexandria, Govt. Lublin.	
Experiment Field of the Institute of Agriculture and Forestry.	do	Professor Budrin.
Experiment Field	Novocherkassk, Govt. Don.	
Experiment Garden	Novoe Selo, Govt. Yaroslavl.	M. A. Oshanin.
Shatilov Agricultural Experiment Station	Estate Mokhovoe, Novosil, Govt. Tula.	G. Nefedof.
Experiment Field	Odesa, Govt. Kherson	V. G. Rotmistrov.
Bacteriological Station of the Municipal Zemstvo.	do	
Experiment Field	Omsk, Govt. Akmo-linsk, Siberia.	Prince Kudashov.
Experiment Field	Orel	
Experiment Field	Osi	
Agricultural Experiment Station.....	Estate Prince P. P. Trubetzkoi, Ploti, Govt. Podolsk.	Stehoussieff.
Laboratory of the Derebchina Sugar Factory for Selection of Beet Seed.	Estate Derebchina, Govt. Podolsk.	
Experiment Field	Poltava	V. N. Dyakov.
Flax Culture Station.....	Estate Dirini Gorki of L. P. Sakovich, Perekhov, Govt. Pskov.	Myasnikov.
Agricultural Chemical Experiment and Seed Testing Station of the Polytechnic Institute.	Riga	Prof. Dr. Geo. Thoms.
Experiment Farm of the Riga Polytechnic Institute.	Estate Peterhof, Riga, Govt. Livonia.	
Agricultural Experiment Station.....	Rownoie, Govt. Samara	
Koreisubansk Nursery of American Vines	Sadzhavakho, Govt. Kutaif.	
Agricultural Museum and Laboratory.....	St. Petersburg	A. V. Sovetov.
Seed Testing Station of the Imperial Botanical Garden.	do	J. G. Klinge.

Foreign Experiment Stations—Continued.

RUSSIA—Continued.

Station.	Location.	Director.
Agricultural Bacteriological Station of the Ministry of Agriculture and Imperial Domains.	St. Petersburg	A. Theoktistov.
Ichthyological Laboratory of the Nikolsk Ichthyological Works.	.....do	
Agricultural Chemical Laboratory of the Department of Agriculture at the Forestry Institute.	.....do	Professor Kassovitch.
Experiment Field	Samara	
Station for Systematic Selection of Beet Seed	Smeyla, Govt. Kiev	
Horticultural and Agricultural Experiment Station.	Sochi, Govt. Chernomorsk, Caucasus.	R. Garbe.
Experiment Forest on the Watershed between the Don and Donetz.	Starobyelsk, Govt. Kharkov.	
Horticultural and Agricultural Experiment Station.	Sukhum, Govt. Kutaïs, Caucasus.	Chancellor Tatarinov.
Experiment Field	Tambov	
Agricultural Experiment Station.	Tashkent, Turkestan.	Prof. N. M. Garnitsch-Garnitski.
Experiment Farm .....	.....do	Khodassevich.
Agricultural Botanical Experiment Field	Estate Gerrenes, Govt. Tavastehus, Finland.	
Experiment Field of the Terek Society of Agriculture and Agricultural Industries.	Govt. Terek, Caucasus	
Silk Culture Station	Tiflis, Caucasus	M. Devel.
Station for Seed Testing at the Storehouse of the Tver Section of the Imperial Moscow Agricultural Society.	Tver	
Okum Experiment Field	Urzhum, Govt. Vyatka	
Agricultural Experiment Station	Valuiki, Govt. Samara	V. S. Bogdan.
Control Station of the Agricultural Experiment Station.	.....do	
Experiment Field of the Varnavin Zemstvo	Varnavin	
Peasant Experiment Farm	Velikoe Selo, Govt. Yaroslav.	Yagodin Kuvshinov.
Experiment Field	Verkhosunya, Govt. Vyatka.	
Experiment Farm	Vuisokoe Selo, Govt. Yaroslav.	N. P. Sabanyeev.
Agricultural Experiment Station	Vyatka	S. N. Kossarev.
Seed Testing Station of the Museum of Manufactures and Agriculture.	Warsaw, Poland	A. Sempolovski.
Agricultural Chemical Laboratory and Control Station of the Esthonian Agricultural Society.	Estate Veltz, Wesenberg, Govt. Esthonia.	
Experiment Tobacco Plantation, Nikitsk Imperial Garden.	Yalta, Crimea	
Magarach (Enological-Chemical Laboratory and Experiment Cellar of the Nikita School of Horticulture and Wine Making.	Yalta, Govt. Taurida ..	
Chemical Control Station of the Imperial Livonian Economic Society.	Yuryev (formerly Dorpat), Govt. Livonia.	
Agricultural Station	Zapotié	
Experiment Field of the Zolotonoshi Zemstvo	Zolotonoshi	
Station for Seed Selection of the Olshansk Beet-Sugar Factory.	Zvenigorod, Govt. Kiev.	

SENEGAL.

Experiment Station.	St. Louis	Perruchot.
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SERVIA.

Government Laboratory	Belgrade	
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SIERRA LEONE.

Botanical Station		Walter Haydon.
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Foreign Experiment Stations—Continued.

SOUDAN.

Station.	Location.	Director.
Experiment Garden	Bammakou.....	Luc.
Experiment Station	Beau, Kameroun, Ger- man Africa.....	Deistel.
Experiment Station	Freneh Africa.....	Jacques.
Agricultural Station.....	Kati.....	Martret.

SOUTHERN NIGERIA.

Botanic Garden.....	Old Calabar	John H. Holland.
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SPAIN.

Experiment Farm	Barcelona.....	Victor C. Mausó de Tu- ñiga.
Enological Station	Alicante.....	
Experiment Farm	Caceres.....	
Experiment Farm	Carunna.....	
Enological Station	Ciudad Real.....	
Enological Station	Haro	Prof. C. Ascarate. Prof. José Ma. Martí.
Experiment Farm	Jerez	
Experiment Station for Vegetable Pathology.....	Madrid	
Central Farm of the Alfonso XII Agricultural Institute.	.....do
Experimental Station of Agricultural High School.	.....do
Analytical Laboratory of Agricultural High School.do	Prof. Josef Hurtado de Mendoza.
Sericultural Station.....	Murcia	A. Dorronsoro.
Enological Station	Toro	Prof. Josef Hurtado de Mendoza.
Viticultural Experiment Station.....	Madrid	
Experiment Farm	Saragossa.....	
Enological Station	Valencia	
Experiment Farm .....	.....do

STRAITS SETTLEMENTS.

Botanic Gardens	Penang.....	Charles Curtis.
Botanic Gardens	Singapore	Henry N. Ridley.

SWEDEN.

Chemical Experiment Station	Albano, Stockholm ...	Prof. S. Lamp.
Entomological Station.....	.....do	
Experiment Station of the Agricultural Academy.	.....do	
Chemical Division .....	.....do	
Division of Plant Physiology .....	.....do	
Division of Pomology .....	.....do	L. P. Nilson.
Experimental Field .....	.....do	Prof. Dr. Jakob Eriksson.
Agricultural Chemical Station of the Agricultural Society.	Alnarp	Erik Lindgren.
Agricultural Chemical Station of the Agricultural Society.	Borås	Sigurd Rhodin.
Seed Control Station .....	.....do	Dr. M. Weibull.
Institute for Fish Culture and Fresh Water Bi- ology.	Finspong	Dr. W. Abenius.
Agricultural Chemical Station of the Agricultural Society.	Gefle	
Seed Control Station.....	.....do	
Seed Control Station.....	Göteborg	
Chemical and Seed Control Station.....	Halmstad	
Seed Control Station.....	Hemse	Dr. K. Arnell.
Chemical and Seed Control Station.....	Hernösand	Ag. Westman.
Seed Control Station.....	Jönköping	J. E. Alén.
Experiment Station of the Swedish Moor Associa- tion.	.....do	Em. Lyttkens.
Seed Control Station.....	.....do	Th. A. Sätervall.
Chemical and Seed Control Station	Kalmar	C. G. Strokirk.
Agricultural Chemical Station of the Agricultural Society.	Kristianstad.....	Rob. Tolf.
		C. von Feilitzen.
		Rob Tolf.
		Dr. A. Atterberg.
		F. Johannessen.

Foreign Experiment Stations—Continued.

SWEDEN—Continued.

Station.	Location.	Director.
Seed Control Station.....	Kristianstad.....	Dr. L. J. Wahlstedt.
Seed Control Station.....	Linköping.....	C. Ad. Blum.
Chemical Experiment Station for Agriculture and Vegetable Physiology and Seed Control Station.....	Luleå.....	Dr. Paul Hellström.
Seed Control Station.....	Lund.....	Dr. B. Jönsson.
Agricultural Chemical and Seed Control Station of the Agricultural Society.....	Molkom.....	J. A. Andersson.
Chemical and Seed Control Station.....	Oerebro.....	J. Widén.
Seed Control Station.....	Ope, near Estersund.....	J. F. Broman.
Chemical and Seed Control Station.....	Skara.....	S. Hammar.
Seed Control Station.....	Stockholm.....	Olaf Sternquist.
Experiment Station of the General Swedish Seed Association.....	Svalöf.....	Dr. H. J. Nilson.
Agricultural Institute.....	Ultuna.....	H. B. Juhlin Dannfelt.
Chemical Laboratory.....	.....do.....	Alb. Westerberg.
Agricultural Chemical Station of the Agricultural Society.....	.....do.....	E. Pettersson.
Seed Control Station.....	Umeå.....	C. N. Pahl.
Seed Control Station.....	Upsala.....	T. von Post.
Chemical and Seed Control Station.....	Vesteras.....	Dr. J. O. Bergstrand.
Chemical and Seed Control Station.....	Visby.....	.....
Agricultural Chemical Station of the Agricultural Society.....	.....do.....	A. Zetterling.

SWITZERLAND.

Viticultural Experiment Station.....	Auvernier, near Neuenburg.....	M. Lozeron.
Agricultural Chemical Station.....	Bern.....	Dr. P. Liechti.
Dairy Bacteriological Experiment Station.....	.....do.....	Dr. E. von Freudenreich.
School for Agriculture.....	Cernier, near Neuen- burg.....	O. Bille.
Seed Control Station.....	Lausanne.....	G. Martinet.
Viticultural Experiment Station.....	.....do.....	Dr. Jean Dufour.
Agricultural Chemical Station.....	.....do.....	Prof. E. Chuard.
Agricultural Experiment Station of the Agricul- tural Institute.....	.....do.....	Prof. S. Bieler.
Dairy Experiment Station.....	.....do.....	Pelichet.
Agricultural Chemical Station.....	.....do.....	Dr. Duserre.
Agricultural and Dairy Experiment Station.....	Liebefeld, Bern.....	V. Lederry.
Dairy School.....	Pérolles.....	De Vevey.
School for Agriculture.....	Plantahof, Landquart.....	Dr. G. Geättei.
School for Agriculture.....	Rüti, Bern.....	C. Moser.
Dairy School.....	.....do.....	E. Wüthrich.
School for Agriculture.....	Strickhof, Zürich.....	Dr. H. Schneebeil.
Experiment Station for Pomology, Viticulture, and Horticulture.....	Wädenswil, near Zü- rich.....	Dr. H. Müller-Thurgau.
Seed Control Station.....	Zürich.....	Dr. F. G. Stebler.
Experiment Station for Brewing.....	.....do.....	L. Fries.
Agricultural Chemical Station.....	.....do.....	Dr. E. A. Grete.

TUNIS.

Agricultural Station.....	Tunis.....	E. Bertainchaud.
Experiment Station.....	Guillochon.

URUGUAY.

School of Agriculture and Experimental Farm ...	Toledo.....	
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ZANZIBAR.

Agricultural Department.....	Dunga.....	Robert Nunez Lyne.
Experimental Farm.....	Tundana, Pemba.....	H. Lister.
Victoria Gardens.....	.....	W. Buzzacott.

LIST OF STATION PUBLICATIONS RECEIVED BY THE OFFICE OF EXPERIMENT STATIONS DURING 1900.¹

ALABAMA COLLEGE STATION.

Publication.	Title.	Author.
1899.		
Bulletin 106	Orchard Notes	F. S. Earle.
Bulletin 107	Varieties of Cotton	J. F. Duggar.
	Preparation and Cultivation of the Soil for Cotton.	Do.
	The Manuring of Cotton	Do.
	The Diseases of Cotton	F. S. Earle.
	Climatic Condition of Cotton Belt.	P. H. Mell.
	Improvement of the Cotton by Hybridization and Selection.	Do.
	The Cotton Plant Considered in Some of its Chemical Relations.	B. B. Ross et al.
Annual Report	Twelfth Annual Report, 1899.....	
1900.		
Index, Vol. VII.....	Index to Bulletins 101-107, and Twelfth Annual Report.	
Bulletin 108	Tomatoes	F. S. Earle.
Bulletin 109	Strawberries	Do.

ALABAMA TUSKEGEE STATION.

1898.		
Bulletin 1	Feeding Acorns.....	G. W. Carver.
Bulletin 2	Experiments with Sweet Potatoes.....	Do.
1899.		
Bulletin 3	Fertilizer Experiments on Cotton	Do.

ARIZONA STATION.

1899.		
Bulletin 31	Sugar Beet Experiments during 1899	A. J. McClatchie.
Bulletin 32	Some Insect Pests of Salt River Valley and the Remedies for Them.	T. D. A. Cockerell.
1900.		
Bulletin 33	An Inquiry into the Cause and Nature of Crown Gall.	J. W. Toumey.
Bulletin 34	Timely Hints for Farmers	R. H. Forbes et al.
Bulletin 35	Vegetable Growing in Southern Arizona.....	A. J. McClatchie.

ARKANSAS STATION.

1899.		
Bulletin 59	The Comparative Yield of Corn from Seed of the same Variety Grown in Different Latitudes.	C. L. Newman.
Bulletin 60	Second Report on Arkansas Seedling Apples...	J. T. Stinson.
Annual Report	Twelfth Annual Report, 1899	
1900.		
Bulletin 61	Annual Plants for Summer Hay and Pasture; for Winter Hay and Pasture, and for Forage or Coarse Fodder. Permanent Plants for Meadow and Pasture. Special Crops for Pig Grazing.	R. L. Bennett.

¹A list of publications issued by the stations prior to January 1, 1892, was published in the Experiment Station Record, Vol. III, p. 937; and lists of those issued in subsequent years in the following bulletins of the Office of Experiment Stations: 1892 and 1893, Bulletin 19, p. 61; 1894, Bulletin 23, p. 58; 1895, Bulletin 27, p. 59; 1896, Bulletin 39, p. 58; 1897, Bulletin 47, p. 57; 1898, Bulletin 59, p. 74, and 1899, Bulletin 74, p. 79. A list of the publications issued by the stations from 1875 to 1899 was published in Bulletin 80, p. 512, of the Office of Experiment Stations.

List of station publications received by the Office of Experiment Stations, etc.—Continued.

CALIFORNIA STATION.

Publication.	Title.	Author.
1898. Circular	The Extermination of Weeds.....	E. W. Hilgard.
Annual Report.....	Annual Report, 1898	
1899. Seed Bulletin	Distribution of Seeds and Plants.....	E. J. Wickson.
Bulletin 126	Paris Green for the Codling Moth.....	C. W. Woodworth and G. E. Colby.
1900. Bulletin 127	Bench-Grafting Resistant Vines	F. T. Bioletti and A. M. Dal Piaz.
Bulletin 128	Nature, Value, and Utilization of Alkali Lands..	E. W. Hilgard.
Bulletin 129	Report on the Condition of Olive Culture in California.	A. P. Hayne.
Bulletin 130	Preservation of Unfermented Grape Must	F. T. Bioletti and A. M. Dal Piaz.

COLORADO STATION.

1899. Annual Report.....	Twelfth Annual Report, 1899	
1900. Bulletin 53	Strawberries	C. S. Crandall and C. H. Potter.
Bulletin 54	Apiary Experiments.....	C. P. Gillette.
Bulletin 56	The Birds of Colorado	W. W. Cooke.
Bulletin 57	Farm Notes—Alfalfa, Corn, Potatoes, and Sugar Beets.	Do.
Bulletin 58	A Soil Study. II. The Crop Grown: Sugar Beets.	W. P. Headden.

CONNECTICUT STATE STATION.

1899. Annual Report.....	Twenty-third Annual Report, 1899	
1900. Bulletin 130	Commercial Feeding Stuffs in the Connecticut Market.	E. H. Jenkins et al.
Bulletin 131	The Protection of Shade Trees in Towns and Cities.	Do.
Annual Report	Annual Report, 1900 (Part I).....	

CONNECTICUT STORRS STATION.

1900. Bulletin 20	A Study of Dairy Cows	C. L. Beach.
Bulletin 21	The Ripening of Cream	H. W. Conn.

DELAWARE STATION.

1899. Annual Report	Eleventh Annual Report, 1899	
1900. Bulletin 46	The Southern or Cow Pea in Delaware	A. T. Neale and W. H. Bishop.
Bulletin 47	Common Diseases of the Fowls, their Control and Treatment.	F. D. Chester.
Bulletin 48	Top-Working Apple Trees	G. H. Powell.
Bulletin 49	The Strawberry Root Louse. The Destructive Pea Louse in Delaware.	E. D. Sanderson.

FLORIDA STATION.

1900. Bulletin 51	Some Common Florida Scales.....	H. A. Gossard.
Bulletin 52	Baking Powders	H. K. Miller.
Bulletin 53	Some Citrus Troubles	H. H. Hume.
Bulletin 54	Pecan Culture	Do.
Bulletin 55	Feeding with Florida Feed Stuffs.....	H. E. Stockbridge.

List of station publications received by the Office of Experiment Stations, etc.—Continued.

GEORGIA STATION.

Publication.	Title.	Author.
1899.		
Bulletin 46	Corn Culture.....	R. J. Redding.
Bulletin 47	Fertilizer, Culture, and Variety Experiments on Cotton.	Do.
Annual Report	Twelfth Annual Report, 1899	
1900.		
Bulletin 48	Strawberry Notes for 1899.....	A. L. Quaintance.
Bulletin 49	Practical Dairying.....	R. J. Redding and H. J. Wing.
Bulletin 50	The Brown Rot of Peaches, Plums, and Other Fruits.	A. L. Quaintance.

IDAHO STATION.

1899.		
Bulletin 20	Apple Scab in the Potlatch	L. F. Henderson.
1900.		
Bulletin 21	The Codling Moth	J. M. Aldrich.
Bulletin 22	Onion Growing	F. A. Huntley.
Bulletin 23	Meteorological Records. Prediction of Frosts.	J. E. Bonebright.
Bulletin 24	Cattle Feeding. Crop Tests	H. T. French.

ILLINOIS STATION.

1899.		
Annual Report	Twelfth Annual Report, 1899	
1900.		
Bulletin 57	The Smuts of Illinois Agricultural Plants	G. P. Clinton.
Bulletin 58	Composition and Digestibility of Corn Fodder and Corn Stover.	C. G. Hopkins.
Bulletin 59	Orchard Management	J. C. Blair.
Bulletin 60	Economic Entomology of the Sugar Beet.....	S. A. Forbes and C. A. Hart.

INDIANA STATION.

1899.		
Bulletin 80	Sheep Scab.....	A. W. Bitting.
Bulletin 81	Field Tests with Fertilizers on Heavy Clay Lands.	H. A. Huston.
Annual Report	Twelfth Annual Report, 1899	
1900.		
Bulletin 82	Roots and Other Succulent Food for Swine.....	C. S. Plumb.
Bulletin 83	Tests of Small Fruits.....	J. Troop.

IOWA STATION.

1899.		
Biennial Report	Eighteenth Biennial Report, 1898 and 1899.....	
1900.		
Bulletin 44	Observations and Suggestions on Root Killing of Fruit Trees.	J. Craig.
Bulletin 45	Field Experiments with Corn, Oats, Barley, Wheat, Brome Grass, Rape, Sorghum, Soy Beans, Cowpeas, and Sugar Beets.	J. Atkinson.
Bulletin 46	Facts and Opinions about Plums and Plum Growing in Iowa.	J. Craig.
Bulletin 47	Notes on Vegetables—Cucumbers, Egg Plants, Lima Beans, Sweet Potatoes, Tomatoes, and Peppers.	Do.
Bulletin 48	Economical Production of Beef. A Study of Pork Production. Fattening Range Lambs. Fattening Lambs in Comparison with Yearlings.	C. F. Curtiss and J. A. Craig.
Bulletin 49	Miscellaneous Insects.....	H. E. Summers.
Bulletin 50	Insecticide Methods	Do.
Bulletin 51	Winter Wheat	J. Atkinson.
Bulletin 52	Cream Testing	C. H. Eckles.

List of station publications received by the Office of Experiment Stations, etc.—Continued.

IOWA STATION—Continued.

Publication.	Title.	Author.
1900. Bulletin 52	Influence of Certain Conditions in Churning on the Amount of Water in Butter. A Study of Butter Increasers.	J. B. Weems and F. W. Bouska.
Bulletin 53	The Asparagus Rust in Iowa	L. H. Pammel and E. R. Dodson.

KANSAS STATION.

1899. Annual Report	Twelfth Annual Report, 1899	
1900. Bulletin 90	Alfalfa in Eastern Kansas	H. M. Cottrell, D. H. Otis, and J. G. Haney.
Bulletin 91	Swine Plague	P. Fischer and A. T. Kinsley.
Bulletin 92	A New Drought-Resisting Crop—Soy Beans	H. M. Cottrell, D. H. Otis, and J. G. Haney.
Bulletin 93	Kafir Corn	Do.
Bulletin 94	Sugar Beets, 1899	J. T. Willard and R. W. Clothier.
	The Station Publications. Partial Index to Station Publications to April 1, 1900.	J. T. Willard.
Bulletin 95	Fattening Hogs with Drought-Resisting Crops..	H. M. Cottrell, D. H. Otis, and J. G. Haney.
Bulletin 96	Soil Inoculation for Soy Beans	Do.
Bulletin 97	Skim-Milk Calves	Do.
Bulletin 98	Some Scale Insects upon Kansas Grasses	E. A. Popenoe and P. J. Parrott.
Bulletin 99—Press Bulletin 35-70.	Dysentery in Calves and other Young Animals. Experiments with Swine Plague or Hog Cholera. Kafir Corn, Alfalfa Hay, and Soy Beans for Pork. What is a Digestion Experiment? Skim-Milk Calves. Orchard Cultivation. A Digestion Experiment with Alfalfa Hay. To Rid the House of Flies. Selection of Seed Wheat. The Profitable Strawberry Bed. Early Plowing and Moisture Conservation. Soy Beans. Awnless Brome Grass. The Kansas Experiment Station. A Horn-Fly Trap Experiment. Infectious Abortion in Cattle. Alfalfa in Eastern Kansas. Some Nitrogenous Forage Plants. Experiments with Sugar Beets in 1899 and 1900. Kafir Corn. Plant Breeding by Bud Selection. Digestion Experiments with Kafir-Corn Stover and Kafir-Corn Meal. Protective Inoculation against Blackleg in Cattle. Questions about Forage Plants. How to test the Vitality of Garden Seeds. Gophers and Crab Grass <i>v.</i> Alfalfa. Salsify or Oyster Plant. Tame Grasses for Kansas. <i>Bromus inermis</i> . Prevention of Grain Smuts. Horn Fly Remedies. Causes of Failure in Spraying. The Cultivated Catalpas. The Buffalo Tree Hopper. The Cultivated Millets. Botanical Notes on Wheat and Spelt.	
Annual Report	Thirteenth Annual Report, 1900	

KENTUCKY STATION.

1898. Annual Report	Eleventh Annual Report, 1898	
1899. Bulletin 84	The Elms and their Diseases	H. Garman.
Bulletin 85	Commercial Fertilizers	M. A. Scovell, A. M. Peter, and H. E. Curtis.
1900. Bulletin 86	Inspection and Analyses of Foods	M. A. Scovell.
Bulletin 87	Kentucky Forage Plants—The Grasses	H. Garman.
	Analysis of Some Kentucky Grasses	A. M. Peter.

List of station publications received by the Office of Experiment Stations, etc.—Continued.

LOUISIANA STATIONS.

Publication.	Title.	Author.
1899.		
Bulletin 57	Immunization against Texas Fever by Blood Inoculation.	W. R. Dodson, W. H. Dalrymple, and H. A. Morgan.
Bulletin 58	Analyses of Commercial Fertilizers and Paris Green.	W. C. Stubbs.
Report	Geology and Agriculture: V. A Preliminary Report on the Geology of Louisiana.	G. D. Harris and A. C. Veatch.
Annual Report	Twelfth Annual Report, 1899	
1900.		
Bulletin 59	Sugar Cane: Field and Laboratory Results for Ten Years.	W. C. Stubbs.
Bulletin 60	Charbon	W. H. Dalrymple.
Bulletin 61	Rice: Preparation, Cultivation, Flooding, and Harvesting.	W. C. Stubbs.
Bulletin 62	Rice Weeds in Louisiana	W. R. Dodson.
	Report of Results for 1899 at Calhoun, the North Louisiana Experiment Station.	J. G. Lee.

MAINE STATION.

1899.		
Bulletin 54	Nuts as Food	C. D. Woods and L. H. Merrill.
Bulletin 55	Cereal Breakfast Foods	Do.
Bulletin 56	Apple Insects of Maine	F. L. Harvey and W. H. Munson.
Bulletin 57	Experiments with Potatoes	C. D. Woods and J. M. Bartlett.
Bulletin 58	Finances, Meteorology, and Index	C. D. Woods.
Annual Report	Fifteenth Annual Report, 1899	
1900.		
Bulletin 59	Feeding Stuff Inspection	C. D. Woods and J. M. Bartlett.
Bulletin 60	Fertilizer Inspection	C. D. Woods.
Bulletin 61	Notes on Insects and Plants	F. L. Harvey.
Bulletin 62	The Maine Experiment Station	C. D. Woods.
Bulletin 63	Feeding Stuff Inspection	C. D. Woods and J. M. Bartlett.
Bulletin 64	Poultry Experiments in 1899	G. M. Gowell.
Bulletin 65	Coffee Substitutes	C. D. Woods and L. H. Merrill.
	Nut Oils	L. H. Merrill.
	Testing Grass Seed	C. D. Woods.
	Potato Pomace	J. M. Bartlett.
Bulletin 66	Fertilizer Inspection	C. D. Woods and J. M. Bartlett.
Bulletin 67	Digestion Experiments with Sheep	J. M. Bartlett.
	A Comparison of Determined and Calculated Heats of Combustion.	L. H. Merrill.
Bulletin 68	Experiments with Insecticides upon Potatoes ..	C. D. Woods.

MARYLAND STATION.

1899.		
Bulletin 63	Experiments with Feeding Pigs	H. J. Patterson.
Annual Report	Twelfth Annual Report, 1899	
1900.		
Bulletin 64	A Study of the Cause of Mottled Butter	C. F. Doane.
Bulletin 65	Insecticides, Fungicides, and Spraying Apparatus.	W. G. Johnson, C. O. Townsend, and H. P. Gould.
Bulletin 66	Lime: Sources and Relation to Agriculture	H. J. Patterson.
Bulletin 67	The Culture and Handling of Tobacco	Do.
Bulletin 68	Fertilizer Experiments with Different Sources of Phosphoric Acid.	Do.
Annual Report	Thirteenth Annual Report, 1900	

List of station publications received by the Office of Experiment Stations, etc.—Continued.

MASSACHUSETTS HATCH STATION.

Publication.	Title.	Author.
1899. Bulletin 63	Analysis of Manurial Substances sent on for Examination. Analysis of Licensed Fertilizers Collected by the Agent of the Station during 1899.	C. A. Goessman.
Annual Report	Twelfth Annual Report, 1899.....	
1900. Bulletin 64	Concentrated Feed Stuffs.....	J. B. Lindsey et al.
Bulletin 65	Analyses of Commercial Fertilizers and Manurial Substances sent on for Examination. Detailed Instructions Regarding the Sampling of Materials to be Forwarded for Investigation. Discussion of Trade Values of Fertilizing Ingredients. Instructions to Manufacturers, Importers, Agents, and Sellers of Commercial Fertilizers.	C. A. Goessman.
Bulletin 66	Variety Tests of Fruits. Fertilizers for Fruits. Thinning Fruits. Pruning.	S. T. Maynard.
Bulletin 67	The Grass Thrips. Treatment of Thrips in Greenhouses.	H. T. Fernald and W. E. Hinds.
Bulletin 68	Analyses of Manurial Substances sent on for Examination. Analyses of Licensed Fertilizers Collected by the Agent of the Station during 1900.	C. A. Goessman.
Bulletin 69	The Rotting of Greenhouse Lettuce	G. E. Stone and R. E. Smith.
Bulletin 70	Analyses of Manurial Substances sent on for Examination. Analyses of Licensed Fertilizers Collected by the Agent of the Station during 1900.	C. A. Goessman.
Meteorological Bulletins.	Meteorological Bulletins 133-140.....	J. E. Ostrander and A. C. Monahan.
	Meteorological Bulletins 141-144.....	J. E. Ostrander and C. L. Rice.

MICHIGAN STATION.

1898. Annual Report	Eleventh Annual Report, 1898.....	
1899. Bulletin 177	South Haven Report for 1899	L. R. Taft and S. H. Fulton.
Annual Report	Twelfth Annual Report, 1899	
1900. Bulletin 178	The Production and Marketing of Wool.....	H. W. Mumford.
Bulletin 179	Sugar Beet Investigations	J. D. Towar.
Bulletin 180	Some Insects of the Year 1899.....	R. H. Pettit.
Bulletin 181	Soil Tests on Upland and Muck. Clover and Sand Lucern Notes. Wheat Experiments.	J. D. Towar.
Bulletin 182	A Popular Discussion of Pure Milk Supply.....	C. E. Marshall.
Bulletin 183	Gassy Curd and Cheese	Do.
Bulletin 184	Tuberculosis and Its Management.....	Do.
Bulletin 185	Fertilizer Analyses	R. C. Kedzie and L. H. Van Wormer.

MINNESOTA STATION.

1899. Bulletin 66.....	Beetles Injurious to Fruit Producing Plants....	O. Lugger.
Annual Report	Annual Report, 1899	
1900. Bulletin 67.....	Investigation in Milk Production. Feeding Dairy Cows.	T. L. Hæcker.
Bulletin 68.....	Experiments at Coteau Farm.....	W. M. Hays and W. G. Smith.
	Report of Progress of Work at the Northwest Experiment Farm.	T. A. Hoverstad.
	Report of Progress of Work at the Northeast Experiment Farm.	H. H. Chapman.

List of station publications received by the Office of Experiment Stations, etc.—Continued.

MISSISSIPPI STATION.

Publication.	Title.	Author.
1898. Annual Report	Eleventh Annual Report, 1898	
1899. Annual Report	Twelfth Annual Report, 1899	
1900. Bulletin 61	Analyses of Commercial Fertilizers	W. F. Hand et al.
Bulletin 62	Varieties of Cotton	E. R. Lloyd.
Bulletin 63	The Inoculation of Soils	G. W. Herrick.
Bulletin 64	Analyses of Commercial Fertilizers	W. F. Hand et al.
Annual Report	Thirteenth Annual Report, 1900	

MISSOURI STATION.

1900. Bulletin 49	The Apple Orchard	J. C. Whitten.
Bulletin 50	A Test of Spray Nozzles	N. O. Booth.

MONTANA STATION.

1898. Bulletin 20	Fifth Annual Report, 1898	
1898. Bulletin 21	Sheep Feeding	R. S. Shaw.
Bulletin 22	Resistance of Strawberries to Frost. Potato Scab. Treatment of Seed Oats for Smut. Losses Caused by the Grain Aphid. Roup of Chickens. The Internal Chicken Mite. Lupines as Plants Poisonous to Stock. Cattle Poisoning by the Tall Larkspur. Poisoning of Stock by the Water Hemlock. Ergotism in Horses. The Poisoning of Cattle by Smutty Oat Hay. List of Plants of known or Suspected Poisonous Properties which occur within the State. Some Native Forage Plants of the State.	E. V. Wilcox.
Bulletin 23	Injurious Fruit Insects; Insecticides; Insecticide Apparatus.	R. A. Cooley.
Bulletin 24	Sixth Annual Report, 1899	
1900. Bulletin 25	Paris Green and London Purple in Montana.	F. W. Traphagen.

NEBRASKA STATION.

1899. Bulletin 61	Hungarian Brome Grass	T. L. Lyon.
Annual Report	Thirteenth Annual Report, 1899	
1900. Bulletin 62	Feeding Value of Sorghum as Shown by Chemical Analysis.	R. W. Thatcher.
Bulletin 63	The Fatal Effect of Green Sorghum	R. S. Hiltner.
Bulletin 64	Proceedings of Agricultural Students Association, 1899-1900.	
Bulletin 65	Blackleg: Its Nature, Cause, and Prevention ..	A. T. Peters.
Bulletin 66	Sheep Feeding Experiments in Nebraska.	E. A. Burnett.
Bulletin 67	Experiments in the Culture of the Sugar Beet in Nebraska.	H. H. Nicholson and T. L. Lyon.

NEVADA STATION.

1898. Bulletin 40	Pig Feeding	R. H. McDowell.
Bulletin 41	Steer Feeding	Do.
Bulletin 42	Nevada Butters	N. E. Wilson.
Bulletin 43	Sugar Beets—Notes for 1898	R. H. McDowell and N. E. Wilson.
Bulletin 44	Sugar Beets, 1899	Do.
Bulletin 45	Twigs of Common Trees and Shrubs	F. H. Hillman.

List of station publications received by the Office of Experiment Stations, etc.—Continued.

NEVADA STATION—Continued.

Publication.	Title.	Author.
1900.		
Bulletin 46	Flowers and Fruits of Common Trees and Shrubs.	F. H. Hillman.
Bulletin 47	Clover Seeds and their Impurities ..	Do.

NEW HAMPSHIRE STATION.

1899.		
Bulletin 67	The Spiny Elm Caterpillar	C. M. Weed.
Bulletin 68	Eleventh Annual Report, 1899	
1900.		
Bulletin 69	The Inspection of Fertilizers in 1899	F. W. Morse.
Bulletin 70	Experiments with Muskmelons	F. W. Rane.
Bulletin 71	Corn Culture	C. W. Burkett.
Bulletin 72	Insect Record for 1899	C. M. Weed.
Bulletin 73	Experiments with Tomatoes and Potatoes	F. W. Rane.
Bulletin 74	Growing Strawberries in New England	Do.
Bulletin 75	The Forest Tent Caterpillar	C. M. Weed.

NEW JERSEY STATIONS.

1899.		
Bulletin 141	Forcing Tomatoes	A. T. Jordan.
Annual Report	Twentieth Annual Report of the State Station and Twelfth of the College Station, 1899.	
1900.		
Bulletin 142	Pear Growing in New Jersey	Do.
Bulletin 143	The Apple Plant Louse	J. B. Smith.
Bulletin 144	Live Covers for Country Homes	B. D. Halsted.
Bulletin 145	Analyses of Fertilizer Supplies and Home Mixtures, Analyses and Valuations of Commercial Fertilizers and Ground Bone.	L. A. Voorhees and J. P. Street.
Bulletin 146	Crude Petroleum v. the San José or Pernicious Scale.	J. B. Smith.

NEW MEXICO STATION.

1899.		
Bulletin 81	A Study of Soil Moisture	C. A. Keffer and J. D. Tinsley.
Bulletin 82	Grasses and Forage Crops	C. A. Keffer.
1900.		
Bulletin 83	Notes from the San Juan Substation	C. E. Mead.
Bulletin 84	Principles of Water Analyses as Applied to New Mexico Waters.	A. Goss.
Bulletin 85	Observations on Insects	T. D. A. Cockerell.
Bulletin 86	Announcement to New Mexico Ranchmen and List of Bulletins.	F. W. Sanders.

NEW YORK STATE STATION.

1898.		
Annual Report	Seventeenth Annual Report, 1898	
1899.		
Bulletin 162	Leaf Scorch of the Sugar Beet, Cherry, Cauliflower, and Maple.	F. C. Stewart.
Bulletin 163	The New York Apple Tree Canker	W. Paddock.
Bulletin 164	Notes on Various Plant Diseases	F. C. Stewart.
Bulletin 165	Report of Analyses of Paris Green and Other Insecticides.	L. L. Van Slyke.
Bulletin 166	Commercial Feeding Stuffs in New York	W. H. Jordan and C. G. Jenner.
Bulletin 167	A Fruit Disease Survey of the Hudson Valley in 1899.	F. C. Stewart and F. H. Blodgett.
Bulletin 168	Director's Report for 1899	W. H. Jordan.
Bulletin 169	Fertilizing Self-Sterile Grapes	S. A. Beach.
Bulletin 170	Common Diseases and Insects Injurious to Fruits.	S. A. Beach, V. H. Lowe, and F. C. Stewart.

List of station publications received by the Office of Experiment Stations, etc.—Continued.

NEW YORK STATE STATION—Continued.

Publication.	Title.	Author.
1899.		
Bulletin 171	Animal Food for Poultry	W. P. Wheeler.
Bulletin 172	The Efficiency of a Continuous Pasteurizer at Different Temperatures.	H. A. Harding and L. A. Rogers.
Bulletin 173	Report of Analyses of Commercial Fertilizers for the Fall of 1899.	L. L. Van Slyke.
Annual Report	Eighteenth Annual Report, 1899.....	
1900.		
Bulletin 174	Fumigation of Nursery Stock.....	S. A. Beach.
Bulletin 175	A Parasite upon Carnation Rust.....	F. H. Blodgett.
Bulletin 176	Inspection of Concentrated Commercial Feeding Stuffs during 1900.	W. H. Jordan and C. G. Jenter.
1899.		
Popular edition.		
Bulletin 162	Injury by Sun Scorching of Foliage	F. H. Hall and F. C. Stewart.
Bulletin 163	Canker: An Enemy of the Apple.....	F. H. Hall and W. Paddock.
Bulletin 164	Divers Diseases Discussed.....	F. H. Hall.
Bulletin 166	What Chemistry Finds in Feeds.....	F. H. Hall, W. H. Jordan, and C. G. Jenter.
Bulletin 167	Fruit Diseases Found along the Hudson.....	F. H. Hall, F. C. Stewart, and F. H. Blodgett.
Bulletin 169	What Grapes are Best as Pollenizers.....	F. H. Hall and S. A. Beach.
Bulletin 171	What Grains Lack as Poultry Food.....	F. H. Hall and W. P. Wheeler.
Bulletin 172	Continuous Pasteurization of Milk	F. H. Hall, H. A. Harding, and L. A. Rogers.

NEW YORK CORNELL STATION.

1899.		
Bulletin 176	The Peach Tree Borer	M. V. Slingerland.
1900.		
Bulletin 177	Spraying Notes	L. H. Bailey et al.
Bulletin 178	The Invasion of the Udder by Bacteria.....	A. R. Ward.
Bulletin 179	Introduction to Field Experiments with Fertilizers.	A. L. Knisely.
Bulletin 180	The Prevention of Peach Leaf Curl.....	W. A. Murrill.
Bulletin 181	Pollination in Orchards	S. W. Fletcher.
Bulletin 182	Sugar Beet Investigations for 1899.....	J. L. Stone and L. A. Clinton.
Bulletin 183	Sugar-Beet Pulp as a Food for Cows	H. H. Wing and L. Andersou.
Bulletin 184	The Grape Root Worm—A New Grape Pest in New York.	M. V. Slingerland.
Bulletin 185	The Common European Praying Mantis—A New Beneficial Insect in America.	Do.
Annual Report	Thirteenth Annual Report, 1900	

NORTH CAROLINA STATION.

1899.		
Annual Report	Twenty-Second Annual Report, 1899.....	
1900.		
Bulletin 170	Gardening under Glass; An Experiment in Tomato Forcing..... The Use of Glass in Gardening for the Market.	W. F. Massey and A. Rhodes. W. F. Massey.
Bulletin 171	Corn Culture in North Carolina	B. Irby.
Bulletin 172	The Digestibility of Some Nonnitrogenous Constituents of Certain Feeding Stuffs. The Purification of Phlorogluciuol.	G. S. Fraps.
Bulletin 173	Another Warning in Regard to Compost Peddlers.	W. A. Withers.
Bulletin 174	Methods of Determining Proteid Nitrogen in Vegetable Materials.	G. S. Fraps and J. A. Bizzell.
Bulletin 175	Some New Species of the Genus <i>Cratægus</i> and Notes on Some Dichotomous <i>Panicums</i> .	W. W. Ashe.

List of station publications received by the Office of Experiment Stations, etc.—Continued.

NORTH DAKOTA STATION.

Publication.	Title.	Author.
1899.		
Bulletin 41	Some Hints on Ornamental Planting	C. B. Waldron. Do.
Bulletin 42	Field Notes on Horticultural Department	
Annual Report	Tenth Annual Report, 1899	
1900.		
Bulletin 43	A Study of the Root Systems of Cultivated Plants Grown as Farm Crops.	A. M. Ten Eyck.
Bulletin 44	Water-Hemlock Poisoning. Preserving Eggs ..	E. F. Ladd.
Bulletin 45	Feeding Trials with Work Horses	J. H. Shepperd.

OHIO STATION.

1899.		
Bulletin 109	Meteorological Summary for 1898	C. A. Patton.
Bulletin 110	Eighteenth Annual Report, 1899	C. E. Thorne.
	The Maintenance of Fertility—Field Experi- ments with Fertilizers, 1888-1899.	
Bulletin 111	Investigations of Plant Diseases	A. D. Selby and C. E. Thorne.
Bulletin 112	The Clover Root Borer	F. M. Webster.
Bulletin 113	Plums: A Comparison of Varieties	W. J. Green.
1900.		
Bulletin 114	How Insects are Studied at the Ohio Agricul- tural Experiment Station.	F. M. Webster.
Bulletin 115	Sugar Beets and Sorghum Investigations in 1899.	A. D. Selby.
Bulletin 116	The Grape-Cane Gall Maker and its Enemies ..	F. M. Webster.
Bulletin 117	Stomach Worms in Sheep	J. F. Hickman.
Bulletin 118	Field Experiments with Wheat	Do.
Bulletin 119	The Hessian Fly in 1899 and 1900	F. M. Webster.
Bulletin 120	Meteorological Summary for 1899	C. A. Patton.
	Nineteenth Annual Report, 1900	

OKLAHOMA STATION.

1899.		
Bulletin 44	Field Crops, 1899	F. C. Burtis, G. E. Morrow, and J. H. Bone.
Bulletin 45	An Annotated Catalogue of the Ferns and Flowering Plants of Oklahoma.	E. E. Bogue.
Bulletin 46	Digestion Trials	J. Fields and A. G. Ford.
Bulletin 47	Reports of Wheat Raisers	J. Fields.
	Experiments with Wheat	F. C. Burtis and J. G. Kerr.
Annual Report	Annual Report, 1900	

OREGON STATION.

1896.		
Annual Report	Annual Report, 1896	
1898.		
Annual Report	Annual Report, 1898	
1899.		
Annual Report	Annual Report, 1899	
1900.		
Bulletin 60	Apple Tree Anthracnose—A New Fungus Dis- ease.	A. B. Cordley.
Bulletin 61	The Oregon Prune—Its Composition, Food Value, Soil Draught.	G. W. Shaw.
Bulletin 62	Miscellaneous Investigations	Do.
Annual Report	Annual Report, 1900	

List of station publications received by the Office of Experiment Stations, etc.—Continued.

PENNSYLVANIA STATION.

Publication.	Title.	Author.
1899.		
Bulletin 47	Tests of the Sugar Beet in Pennsylvania.....	H. P. Armsby and E. H. Hess.
Bulletin 48	Winter and Spring Bran.....	W. Frear and W. A. Hutchison.
Annual Report	Annual Report, 1899	
1900.		
Bulletin 49	Field Fertilizer Experiments on Tobacco.....	W. Frear.
Bulletin 50	Distillery Waste	W. Frear and C. A. Browne, jr.
Bulletin 51	Miscellaneous Cattle Food Analyses.....	W. Frear.
Bulletin 52	Small Fruits in 1899	G. C. Butz and J. Pillsbury.
Bulletin 53	Rye Meal and Quaker Oats Feed for Milk Production.....	H. Hayward and E. H. Hess.
Bulletin 54	Methods of Steer Feeding.....	G. C. Watson and M. S. McDowell.
Bulletin 54	The Manurial Value of the Excreta of Milch Cows.	W. S. Sweetser.

RHODE ISLAND STATION.

1899.		
Bulletin 59	Analyses of Commercial Fertilizers.....	H. J. Wheeler and B. L. Hartwell.
Bulletin 60	do	Do.
Bulletin 61	On the Mortality of Incubator Chicks	G. W. Field, H. W. Marshall, and J. A. Warren.
Annual Report	Twelfth Annual Report, 1899	
1900.		
Bulletin 62	Chemical Methods for Ascertaining the Lime Requirements of Soils.....	H. J. Wheeler, B. L. Hartwell, and C. L. Sargent.
Bulletin 63	Feeding Stuff Inspection	H. J. Wheeler and B. L. Hartwell.
Bulletin 64	Feeding and Feeding Stuffs	H. J. Wheeler and A. W. Bosworth.
Bulletin 65	Fertilizer Experiment with Potatoes	H. J. Wheeler and J. A. Tillinghast.
Bulletin 66	Effect of Lime upon Grasses and Weeds	Do.
Bulletin 67	Commercial Fertilizers	H. J. Wheeler et al.
Bulletin 68	Treatment of the Sandy Soils of Rhode Island.....	H. J. Wheeler and G. E. Adams.
Bulletin 69	A Study of Plant Adaptations	H. J. Wheeler and J. A. Tillinghast.
Bulletin 70	Analyses of Commercial Fertilizers.....	H. J. Wheeler et al.
Bulletin 71	Experiment in Top-Dressing Grass Land	H. J. Wheeler and J. A. Tillinghast.
Bulletin 72	Special Instructions in Poultry Culture.....	A. A. Brigham.
Bulletin 73	Commercial Fertilizers	H. J. Wheeler et al.
Annual Report	Thirteenth Annual Report, 1900	

SOUTH CAROLINA STATION.

1898.		
Annual Report	Annual Report, 1898	
1899.		
Bulletin 48	Broad and Narrow Tires	C. M. Conner.
Annual Report	Annual Report, 1899	
1900.		
Bulletin 49	Strawberries	C. C. Newman.
Bulletin 50	Tuberculosis of Cattle	G. E. Nesom.
Bulletin 51	Silo Construction and Silage.....	C. M. Conner.
Bulletin 52	Pig Feeding	J. S. Newman and J. S. Pickett.
Bulletin 53	Analyses of Commercial Fertilizers.....	M. B. Hardin.
Bulletin 54	do	Do.
Bulletin 55	Feeding Rice Meal to Pigs.....	C. M. Conner.
Bulletin 56	Experiments with Wheat, 1900.....	J. S. Newman and J. S. Pickett.

List of station publications received by the Office of Experiment Stations, etc.—Continued.

SOUTH DAKOTA STATION.

Publication.	Title.	Author.
1900. Bulletin 66	Drought-Resisting Forage Plants at the Cooperative Range Experiment Station, Highmore, S. Dak.	J. H. Shepard.
Bulletin 67	Watermelons and Muskmelons in South Dakota.	N. E. Hansen and W. J. Thorner.

TENNESSEE STATION.

1899. Annual Report	Twelfth Annual Report, 1899, and Bulletins Vol. XII, Nos. 1-4.	
Bul. Vol. XII, No. 1	Stock Interests	A. M. Soule.
Bul. Vol. XII, No. 2	Effect of Churning on Fat Globules	G. A. Flickinger.
	Soil Studies. Principles of Plowing. Root Systems of Farm Crops.	A. M. Soule.
Bul. Vol. XII, No. 3	Fertilizer Experiments	C. A. Mooers.
	The Renovation of Unproductive Orchards. Why are Old Orchards Unproductive.	C. A. Keffer.
	Fertilizers for the Orchard	C. A. Mooers.
Bul. Vol. XII, No. 4	Onion Growing	R. H. Garrahan.
	The Utility of the Cowpea. Why Grasses Fail.	A. M. Soule.
	Notes on Grasses	J. R. Fain.
1900. Bul. Vol. XIII, No. 1 ...	Seed Selection	P. O. Vanatter.
	Frost Protection. Climate of Tennessee	W. M. Fulton.

TEXAS STATION.

1899. Bulletin 52	Report of Beeville Station on Cabbage and Cauliflower.	B. C. Pittuck and S. A. McHenry.
Bulletin 53	Texas Fever	M. Francis and J. W. Conaway.
Bulletin 54	The Irish Potato	R. H. Price and H. Ness.
Bulletin 55	Feeding Steers. Feed Value of Cotton Seed and Its Products.	J. H. Connell and H. C. Kyle.
Annual Report	Eleventh Annual Report, 1899	
1900. Bulletin 56	Investigation and Improvement of American Grapes.	T. V. Munson.
Bulletin 57	Cabbage—Fertilizers, Varieties, Shipping. Cauliflower—Varieties, Shipping.	B. C. Pittuck and S. A. McHenry.

UTAH STATION.

1899. Bulletin 62	Tree Planting in Utah	U. P. Hedrick.
Bulletin 63	Sugar Beets in Sanpete and Sevier Counties.	L. Foster.
Bulletin 64	Codling Moth. A Wasp that Destroys the Apple Worm. Sour Cherries. The Oregon Evergreen Blackberry.	U. P. Hedrick and W. Peterson.
Annual Report	Tenth Annual Report, 1899	
1900. Bulletin 65	Plant Diseases and Insect Pests. San José Scale.	C. P. Close.
Bulletin 66	Corn Experiments	L. Foster and L. A. Merrill.
Bulletin 67	Poultry Experiments	J. Dryden.
Bulletin 68	Experiments with Dairy Cows.	F. B. Linfield.
Bulletin 69	Golden Vine Field Pea: Its Chemical Composition and Forage Value.	J. Stewart.

List of station publications received by the Office of Experiment Stations, etc.—Continued.

VERMONT STATION.

Publication.	Title.	Author.
1899.		
Bulletin 73	The Trees of Vermont	Anna M. Clark et al.
Special Bulletin	Sampling Milk and Cream	J. L. Hills.
Bulletin 74	The Home Fruit Garden	F. A. Waugh.
Annual Report	Twelfth Annual Report, 1899	
1900.		
Bulletin 75	Check List of Hybrid Plums	F. A. Waugh.
Bulletin 76	The Forest Caterpillar	G. H. Perkins.
Bulletin 77	Analyses of Commercial Fertilizers	J. L. Hills, C. H. Jones, and B. O. White.
Bulletin 78	Analyses of Commercial Feeding Stuffs	Do.
Bulletin 79	Analyses of Commercial Fertilizers	Do.
Bulletin 80 .....	.....do.....	Do.
Bulletin 81	Principles and Practice of Stock Feeding	J. L. Hills.
Bulletin 82	Analyses of Commercial Feeding Stuffs	J. L. Hills, C. H. Jones, and B. O. White.

VIRGINIA STATION.

1898.		
Bulletin 95	Bovine Distemper	C. McCulloch.
1899.		
Bulletin 96	Experiments with Chickens	E. P. Niles.
Bulletin 97	The Nature and Use of Certain Insecticides	J. L. Phillips and H. L. Price.
Bulletin 98	Fruit Soils of Virginia; Fruit List for Virginia	W. B. Alwood.
Bulletin 99	Growing the Apple Orchard	Do.
Bulletin 100	Spraying the Orchard	Do.
Bulletin 101	Apple Production in Virginia	Do.
Bulletin 102	The Crop Pest Law	Do.
Bulletin 103	Blackleg Vaccine (Revised)	E. P. Niles.
Bulletin 104	The Prevention of Texas Cattle Fever and the Amended Laws Controlling Contagious and Infectious Diseases.	C. McCulloch.
Bulletin 105	Steer Feeding	D. O. Nourse.
Bulletin 106	Barns	Do.
Bulletin 108	Animal Parasites, I.	E. P. Niles.
Bulletin 109	Animal Parasites, II.	Do.

WASHINGTON STATION.

1897.		
Annual Report	Seventh Annual Report, 1897	
1898.		
Bulletin 37	The Present Status of the Russian Thistle in Washington.	C. V. Piper.
Annual Report	Eighth Annual Report, 1898	
1899.		
Bulletin 38	Prunes	J. A. Balmer.
Bulletin 39	The Improvement of Country Roads	W. J. Roberts.
Bulletin 40	Principles Underlying the Use of Fertilizers. Sources and Composition of Fertilizers. Fer- tilizer Law of Washington.	E. Fulmer. W. H. Heileman.
1900.		
Bulletin 41	Forage Plants in Washington	W. J. Spillman.
Bulletin 42	A New Sugar Beet Pest and Other Insects At- tacking the Beet.	R. W. Doane.

WEST VIRGINIA STATION.

1899.		
Bulletin 61	Sheep Feeding Experiments	J. H. Stewart and H. Atwood.
Bulletin 62	A Study of the Effect of Incandescent Gas Light on Plant Growth.	L. C. Corbett.
Annual Report	Twelfth Annual Report, 1899	

List of station publications received by the Office of Experiment Stations, etc.—Continued.

WEST VIRGINIA STATION—Continued.

Publication.	Title.	Author.
1900.		
Bulletin 63	Commercial Fertilizers	J. H. Stewart and B. H. Hite.
Bulletin 64	Sugar Beet Investigation in 1899.	Do.
Bulletin 65	Commercial Fertilizers	Do.
Bulletin 66	Fruit Diseases and How to Treat Them	L. C. Corbett.
Bulletin 67	The Hessian Fly in West Virginia and How to Prevent Losses from its Ravages.	A. D. Hopkins.
Bulletin 68	The Periodical Cicada or Seventeen-year Locust in West Virginia.	Do.
Bulletin 69	Report on Examination of Wheat Stubble from Different Sections of the State. The Joint Worm in Wheat.	Do.

WISCONSIN STATION.

1899.		
Bulletin 79	Principles of Construction and Maintenance of Country Roads.	F. H. King.
Annual Report	Sixteenth Annual Report, 1899.	
1900.		
Bulletin 80	The Character and Treatment of Swamp or Humus Soil.	F. H. King and J. A. Jeffery.
Bulletin 81	Analyses of Licensed Commercial Fertilizers, 1900.	F. W. Woll and A. Vivian.
Bulletin 82	Experiments in Grinding with Small Steel Feed Mills.	F. H. King and J. A. Jeffery.
Bulletin 83	Silage, and the Construction of Modern Silos...	F. H. King.

WYOMING STATION.

1899.		
Bulletin 41	Some Experiments with Subsoiling	B. C. Buffum and W. H. Fairfield.
Bulletin 42	Some Native Forage Plants for Alkali Soils ...	A. Nelson.
1900.		
Bulletin 43	Alfalfa as a Hay Crop	B. C. Buffum.
Bulletin 44	Alfalfa as a Fertilizer.	Do.
Bulletin 45	A Preliminary Report on the Artesian Basins of Wyoming.	W. C. Knight.

FEDERAL LEGISLATION AFFECTING AGRICULTURAL COLLEGES AND EXPERIMENT STATIONS.

ACT OF 1862 DONATING LANDS FOR AGRICULTURAL COLLEGES.

AN ACT donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there be granted to the several States, for the purposes hereinafter mentioned, an amount of public land, to be apportioned to each State a quantity equal to thirty thousand acres for each Senator and Representative in Congress to which the States are respectively entitled by the apportionment under the census of eighteen hundred and sixty: *Provided,* That no mineral lands shall be selected or purchased under the provisions of this act.

SEC. 2. That the land aforesaid, after being surveyed, shall be apportioned to the several States in sections or subdivisions of sections, not less than one quarter of a section; and whenever there are public lands in a State subject to sale at private entry at one dollar and twenty-five cents per acre, the quantity to which said State shall be entitled shall be selected from such lands within the limits of such State, and the Secretary of the Interior is hereby directed to issue to each of the States in which there is not the quantity of public lands subject to sale at private entry at one dollar and twenty-five cents per acre, to which said State may be entitled under the provisions of this act, land scrip to the amount in acres for the deficiency of its distributive share; said scrip to be sold by said States and the proceeds thereof applied to the uses and purposes prescribed in this act and for no other use or purpose whatsoever: *Provided,* That in no case shall any State to which land scrip may thus be issued be allowed to locate the same within the limits of any other State, or of any Territory of the United States, but their assignees may thus locate said land scrip upon any of the unappropriated lands of the United States subject to sale at private entry at one dollar and twenty-five cents, or less, per acre: *And provided further,* That not more than one million acres shall be located by such assignees in any one of the States: *And provided further,* That no such location shall be made before one year from the passage of this act.

SEC. 3. That all the expenses of management, superintendence, and taxes from date of selection of said lands, previous to their sales, and all expenses incurred in the management and disbursement of the moneys which may be received therefrom, shall be paid by the States to which they may belong, out of the treasury of said States, so that the entire proceeds of the sale of said lands shall be applied without any diminution whatever to the purposes hereinafter mentioned.

SEC. 4. That all moneys derived from the sale of the lands aforesaid by the States to which the lands are apportioned, and from the sales of land scrip hereinbefore provided for, shall be invested in stocks of the United States, or of the States, or some other safe stocks, yielding not less than five per centum upon the par value of said stocks; and that the moneys so invested shall constitute a perpetual fund, the capital of which shall remain forever undiminished (except so far as may be provided

in section fifth of this act), and the interest of which shall be inviolably appropriated, by each State which may take and claim the benefit of this act, to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

SEC. 5. That the grant of land and land scrip hereby authorized shall be made on the following conditions, to which, as well as to the provisions hereinbefore contained, the previous assent of the several States shall be signified by legislative acts:

First. If any portion of the fund invested, as provided by the foregoing section, or any portion of the interest thereon, shall, by any action or contingency, be diminished or lost, it shall be replaced by the State to which it belongs, so that the capital of the fund shall remain forever undiminished; and the annual interest shall be regularly applied without diminution to the purposes mentioned in the fourth section of this act, except that a sum, not exceeding ten per centum upon the amount received by any State under the provisions of this act, may be expended for the purchase of lands for sites or experimental farms, whenever authorized by the respective legislatures of said States.

Second. No portion of said fund, nor the interest thereon, shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings.

Third. Any State which may take and claim the benefit of the provisions of this act shall provide, within five years, at least not less than one college, as described in the fourth section of this act, or the grant to such State shall cease; and said State shall be bound to pay the United States the amount received of any lands previously sold, and that the title to purchasers under the State shall be valid.

Fourth. An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their cost and results and such other matters, including State industrial and economical statistics, as may be supposed useful, one copy of which shall be transmitted by mail free, by each, to all the other colleges which may be endowed under the provisions of this act, and also one copy to the Secretary of the Interior.

Fifth. When lands shall be selected from those which have been raised to double the minimum price, in consequence of railroad grants, they shall be computed to the State at the maximum price and the number of acres proportionately diminished.

Sixth. No State while in a condition of rebellion or insurrection against the Government of the United States shall be entitled to the benefit of this act.

Seventh. No State shall be entitled to the benefits of this act unless it shall express its acceptance thereof by its legislature within two years from the date of its approval by the President.

SEC. 6. That land scrip issued under the provisions of this act shall not be subject to location until after the first day of January, one thousand eight hundred and sixty-three.

SEC. 7. That the land officers shall receive the same fees for locating land scrip issued under the provisions of this act as is now allowed for the location of military bounty land warrants under existing laws: *Provided*, Their maximum compensation shall not be thereby increased.

SEC. 8. That the governors of the several States to which scrip shall be issued under this act shall be required to report annually to Congress all sales made of such scrip until the whole shall be disposed of, the amount received for the same, and what appropriation has been made of the proceeds.

Approved, July 2, 1862.

ACT OF 1887 ESTABLISHING AGRICULTURAL EXPERIMENT STATIONS.

AN ACT to establish agricultural experiment stations in connection with the colleges established in the several States under the provisions of an act approved July second, eighteen hundred and sixty-two, and the acts supplementary thereto.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science, there shall be established, under direction of the college or colleges or agricultural department of colleges in each State or Territory established, or which may hereafter be established, in accordance with the provisions of an act approved July second, eighteen hundred and sixty-two, entitled "An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," or any of the supplements to said act, a department to be known and designated as an "agricultural experiment station:" *Provided,* That in any State or Territory in which two such colleges have been or may be so established the appropriation hereinafter made to such State or Territory shall be equally divided between such colleges, unless the legislature of such State or Territory shall otherwise direct.

SEC. 2. That it shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies of the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or Territories.

SEC. 3. That in order to secure, as far as practicable, uniformity of methods and results in the work of said stations, it shall be the duty of the United States Commissioner [now Secretary] of Agriculture to furnish forms, as far as practicable, for the tabulation of results of investigation or experiments; to indicate from time to time such lines of inquiry as to him shall seem most important; and, in general, to furnish such advice and assistance as will best promote the purpose of this act. It shall be the duty of each of said stations annually, on or before the first day of February, to make to the governor of the State or Territory in which it is located a full and detailed report of its operations, including a statement of receipts and expenditures, a copy of which report shall be sent to each of said stations, to the said Commissioner [now Secretary] of Agriculture, and to the Secretary of the Treasury of the United States.

SEC. 4. That bulletins or reports of progress shall be published at said stations at least once in three months, one copy of which shall be sent to each newspaper in the States or Territories in which they are respectively located, and to such individuals actually engaged in farming as may request the same and as far as the means of the station will permit. Such bulletins or reports and the annual reports of said stations shall be transmitted in the mails of the United States free of charge for postage, under such regulations as the Postmaster-General may from time to time prescribe.

SEC. 5. That for the purpose of paying the necessary expenses of conducting investigations and experiments and printing and distributing the results as hereinbefore

prescribed, the sum of fifteen thousand dollars per annum is hereby appropriated to each State, to be specially provided for by Congress in the appropriations from year to year, and to each Territory entitled under the provisions of section eight of this act, out of any money in the Treasury proceeding from the sales of public lands, to be paid in equal quarterly payments on the first day of January, April, July, and October in each year, to the treasurer or other officer duly appointed by the governing boards of said colleges to receive the same, the first payment to be made on the first day of October, eighteen hundred and eighty-seven; *Provided, however,* That out of the first annual appropriation so received by any station an amount not exceeding one-fifth may be expended in the erection, enlargement, or repair of a building or buildings necessary for carrying on the work of such station; and thereafter an amount not exceeding five per centum of such annual appropriation may be so expended.

SEC. 6. That whenever it shall appear to the Secretary of the Treasury from the annual statement of receipts and expenditures of any of said stations that a portion of the preceding annual appropriation remains unexpended, such amount shall be deducted from the next succeeding annual appropriation to such station, in order that the amount of money appropriated to any station shall not exceed the amount actually and necessarily required for its maintenance and support.

SEC. 7. That nothing in this act shall be construed to impair or modify the legal relation existing between any of the said colleges and the government of the States or Territories in which they are respectively located.

SEC. 8. That in States having colleges entitled under this section to the benefits of this act and having also agricultural experiment stations established by law separate from said colleges, such State shall be authorized to apply such benefits to experiments at stations so established by such States; and in case any State shall have established under the provisions of said act of July second, aforesaid, an agricultural department or experimental station, in connection with any university, college, or institution not distinctively an agricultural college or school, and such State shall have established or shall hereafter establish a separate agricultural college or school, which shall have connected therewith an experimental farm or station, the legislature of such State may apply in whole or in part the appropriation by this act made to such separate agricultural college or school, and no legislature shall by contract, express or implied, disable itself from so doing.

SEC. 9. That the grants of moneys authorized by this act are made subject to the legislative assent of the several States and Territories to the purposes of said grants: *Provided:* That payment of such installments of the appropriation herein made as shall become due to any State before the adjournment of the regular session of its legislature meeting next after the passage of this act shall be made upon the assent of the governor thereof duly certified to the Secretary of the Treasury.

SEC. 10. Nothing in this act shall be held or construed as binding the United States to continue any payments from the Treasury to any or all the States or institutions mentioned in this act, but Congress may at any time amend, suspend, or repeal any or all the provisions of this act.

Approved, March 2, 1887.

ACT OF 1890 FOR THE FURTHER ENDOWMENT OF AGRICULTURAL COLLEGES.

AN ACT to apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts established under the provisions of an act of Congress approved July second, eighteen hundred and sixty-two.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be, and hereby is, annually appropriated, out of any money in the Treasury not otherwise appropriated, arising from the sales of public lands, to be paid as hereinafter provided, to each State and Territory for the

more complete endowment and maintenance of colleges for the benefit of agriculture and the mechanic arts now established, or which may be hereafter established, in accordance with an act of Congress approved July second, eighteen hundred and sixty-two, the sum of fifteen thousand dollars for the year ending June thirtieth, eighteen hundred and ninety, and an annual increase of the amount of such appropriation thereafter for ten years by an additional sum of one thousand dollars over the preceding year, and the annual amount to be paid thereafter to each State and Territory shall be twenty-five thousand dollars, to be applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic science, with special reference to their applications in the industries of life and to the facilities for such instruction: *Provided*, That no money shall be paid out under this act to any State or Territory for the support and maintenance of a college where a distinction of race or color is made in the admission of students, but the establishment and maintenance of such college separately for white and colored students shall be held to be a compliance with the provisions of this act if the funds received in such State or Territory be equitably divided as hereinafter set forth: *Provided*, That in any State in which there has been one college established in pursuance of the act of July second, eighteen hundred and sixty-two, and also in which an educational institution of like character has been established, or may be hereafter established, and is now aided by such State from its own revenue, for the education of colored students in agriculture and the mechanic arts, however named or styled, or whether or not it has received money heretofore under the act to which this act is an amendment, the legislature of such State may propose and report to the Secretary of the Interior a just and equitable division of the fund to be received under this act, between one college for white students and one institution for colored students, established as aforesaid, which shall be divided into two parts, and paid accordingly, and thereupon such institution for colored students shall be entitled to the benefits of this act and subject to its provisions, as much as it would have been if it had been included under the act of eighteen hundred and sixty-two, and the fulfillment of the foregoing provisions shall be taken as a compliance with the provisions in reference to separate colleges for white and colored students.

SEC. 2. That the sums hereby appropriated to the States and Territories for the further endowment and support of colleges shall be annually paid on or before the thirty-first day of July of each year, by the Secretary of the Treasury, upon the warrant of the Secretary of the Interior, out of the Treasury of the United States, to the State or Territorial treasurer, or to such officer as shall be designated by the laws of such State or Territory to receive the same, who shall, upon the order of the trustees of the college, or the institution for colored students, immediately pay over said sums to the treasurers of the respective colleges or other institutions entitled to receive the same, and such treasurers shall be required to report to the Secretary of Agriculture and to the Secretary of the Interior, on or before the first day of September of each year, a detailed statement of the amount so received and of its disbursement. The grants of moneys authorized by this act are made subject to the legislative assent of the several States and Territories to the purpose of said grants: *Provided*, That payments of such installments of the appropriation herein made as shall become due to any State before the adjournment of the regular session of legislature meeting next after the passage of this act shall be made upon the assent of the governor thereof, duly certified by the Secretary of the Treasury.

SEC. 3. That if any portion of the moneys received by the designated officer of the State or Territory for the further and more complete endowment, support, and maintenance of colleges, or of institutions for colored students, as provided in this act, shall, by any action or contingency, be diminished or lost, or be misapplied, it shall be

replaced by the State or Territory to which it belongs, and until so replaced no subsequent appropriation shall be apportioned or paid to such State or Territory; and no portion of said moneys shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings. An annual report by the president of each of said colleges shall be made to the Secretary of Agriculture, as well as to the Secretary of the Interior, regarding the condition and progress of each college, including statistical information in relation to its receipts and expenditures, its library, the number of its students and professors, and also as to any improvements and experiments made under the direction of any experiment stations attached to said colleges, with their costs and results, and such other industrial and economical statistics as may be regarded as useful, one copy of which shall be transmitted by mail free to all other colleges further endowed under this act.

SEC. 4. That on or before the first day of July in each year, after the passage of this act, the Secretary of the Interior shall ascertain and certify to the Secretary of the Treasury as to each State and Territory whether it is entitled to receive its share of the annual appropriation for colleges, or of institutions for colored students, under this act, and the amount which thereupon each is entitled, respectively, to receive. If the Secretary of the Interior shall withhold a certificate from any State or Territory of its appropriation the facts and reasons therefor shall be reported to the President, and the amount involved shall be kept separate in the Treasury until the close of the next Congress, in order that the State or Territory may, if it should so desire, appeal to Congress from the determination of the Secretary of the Interior. If the next Congress shall not direct such sum to be paid it shall be covered into the Treasury. And the Secretary of the Interior is hereby charged with the proper administration of this law.

SEC. 5. That the Secretary of the Interior shall annually report to Congress the disbursements which have been made in all the States and Territories, and also whether the appropriation of any State or Territory has been withheld, and if so, the reasons therefor.

SEC. 6. Congress may at any time amend, suspend, or repeal any or all of the provisions of this act.

Approved, August 30, 1890.

EXTRACTS FROM AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENT OF AGRICULTURE FOR THE FISCAL YEAR ENDING JUNE THIRTIETH, NINETEEN HUNDRED AND ONE.

AGRICULTURAL EXPERIMENT STATIONS: To carry into effect the provisions of an act approved March second, eighteen hundred and eighty-seven, entitled "An act to establish agricultural experiment stations in connection with the colleges established in the several States under the provisions of an act approved July second, eighteen hundred and sixty-two, and of the acts supplementary thereto," and to enforce the execution thereof, seven hundred and eighty thousand dollars, thirty-three thousand dollars of which sum shall be payable upon the order of the Secretary of Agriculture, to enable him to carry out the provisions of section three of said act of March second, eighteen hundred and eighty-seven, and twelve thousand dollars of which sum may be expended by the Secretary of Agriculture to investigate and report to Congress upon the agricultural resources and capabilities of Alaska; and to establish and maintain agricultural experiment stations in said Territory, including the erection of buildings and all other expenses essential to the maintenance of such stations, of which sum five thousand dollars shall be immediately available; and the Secretary of Agriculture shall prescribe the form of the annual financial statement required by section three of said act of March second, eighteen hundred and eighty-seven; shall

ascertain whether the expenditures under the appropriation hereby made are in accordance with the provisions of the said act, and shall make report thereon to Congress; and the Secretary of Agriculture is hereby authorized to employ such assistants, clerks, and other persons as he may deem necessary, in the city of Washington and elsewhere, and to incur such other expenses for office fixtures and supplies, stationery, traveling, freight, and express charges, illustration of the Experiment Station Record, bulletins, and reports as he may find essential in carrying out the objects of the above acts, and the sums apportioned to the several States shall be paid quarterly in advance.

And the Secretary of Agriculture is hereby authorized to furnish to such institutions or individuals as may care to buy them copies of the card index of agricultural literature prepared by the Office of Experiment Stations, and charge for the same a price covering the additional expense involved in the preparation of these copies, and he is hereby authorized to apply the moneys received toward the expense of the preparation of the index.

And the Secretary of Agriculture is hereby authorized to expend ten thousand dollars of which sum to establish and maintain an agricultural station in the Hawaiian Islands, including the erection of buildings, the printing (in the Hawaiian Islands), illustration, and distribution of reports and bulletins, and all other expenses essential to the maintenance of said station, which sum shall be immediately available.

And the Secretary of Agriculture is hereby authorized to expend five thousand dollars of which sum to investigate and report to Congress on the agricultural resources and capabilities of Porto Rico, with special reference to the selection of locations for agricultural experiment stations, and the determination of the character and extent of agricultural experiments immediately demanded by the condition of agriculture in that island, and to prepare, print, publish, and distribute in Porto Rico circulars of inquiry and bulletins of information in the English and Spanish languages, which sum shall be immediately available; in all, seven hundred and eighty thousand dollars. * * *

NUTRITION INVESTIGATIONS: To enable the Secretary of Agriculture to investigate and report upon the nutritive value of the various articles and commodities used for human food, with special suggestions of full, wholesome, and edible rations less wasteful and more economical than those in common use, seventeen thousand five hundred dollars; and the agricultural experiment stations are hereby authorized to cooperate with the Secretary of Agriculture in carrying out said investigations in such manner and to such extent as may be warranted by a due regard to the varying conditions and needs of the respective States and Territories, and as may be mutually agreed upon; and the Secretary of Agriculture is hereby authorized to require said stations to report to him the results of any such investigations which they may carry out, whether in cooperation with said Secretary of Agriculture or otherwise.

IRRIGATION INVESTIGATIONS: To enable the Secretary of Agriculture to investigate and report upon the laws and institutions relating to irrigation and upon the use of irrigation waters, with special suggestions of better methods for the utilization of irrigation waters in agriculture than those in common use, and for the preparation, printing, and illustration of reports and bulletins on irrigation; and the agricultural experiment stations are hereby authorized and directed to cooperate with the Secretary of Agriculture in carrying out said investigations in such manner and to such extent as may be warranted by a due regard to the varying conditions and needs of the respective States and Territories as may be mutually agreed upon; fifty thousand dollars.

PUBLIC ROAD INQUIRIES: To enable the Secretary of Agriculture to make inquiries in regard to the system of road management throughout the United States; to make investigations in regard to the best methods of road making, and the best kind of road-making materials in the several States; the employment of local and special

agents, clerks, assistants, and other labor required in conducting experiments in the city of Washington and elsewhere and in collating, digesting, reporting, and illustrating the results of such experiments; for labor, traveling, and other necessary expenses, and for preparing and publishing bulletins and reports on this subject for distribution, and to enable him to assist the agricultural colleges and experiment stations in disseminating information on this subject, fourteen thousand dollars. * * *

GRASS AND FORAGE-PLANT INVESTIGATION AND ANIMAL FOODS, DIVISION OF AGROSTOLOGY: * * * The agricultural experiment stations are hereby authorized and directed to cooperate with the Secretary of Agriculture in establishing and maintaining experimental grass stations, for determining the best methods of caring for and improving meadows and grazing lands, the use of different grasses and forage plants, and their adaptability to various soils and climates, the best native and foreign species for reclaiming overstocked ranges and pastures, for renovating worn-out lands, for binding drifting sands and washed lands, and for turfing lawns and pleasure grounds, and for solving the various forage problems presented in the several sections of our country, seventeen thousand dollars: *Provided*, That six thousand dollars of the amount hereby appropriated be used to purchase and collect seeds, roots, and specimens of valuable and economic grasses and forage plants, to be distributed to the various experiment stations in the several States and Territories, to be by them used, under the direction of the Secretary of Agriculture, to ascertain their adaptability to the various soils and climates of the United States. * * *

PURCHASE AND DISTRIBUTION OF VALUABLE SEEDS: For the purchase, propagation, and distribution of valuable seeds, bulbs, trees, shrubs, vines, cuttings, and plants; the employment of local and special agents, clerks, assistants, and other labor required in the city of Washington and elsewhere; transportation, paper, twine, gum, printing, postal cards, and all necessary material and repairs for putting up and distributing the same, and to be distributed in localities adapted to their culture, one hundred and seventy thousand dollars: * * * *Provided further*, That twenty thousand dollars of the sum thus appropriated, or so much thereof as the Secretary of Agriculture shall direct, may be used to collect, purchase, test, propagate, and distribute rare and valuable seeds, bulbs, trees, shrubs, vines, cuttings, and plants from foreign countries for experiments with reference to their introduction into this country; and the seeds, bulbs, trees, shrubs, vines, cuttings, and plants thus collected, purchased, tested, and propagated shall not be included in general distribution, but shall be used for experimental tests, to be carried on with the cooperation of the agricultural experiment stations.

REGULATIONS OF THE POST-OFFICE DEPARTMENT FOR THE FREE TRANSMISSION IN THE MAILS OF THE BULLETINS AND REPORTS OF AGRICULTURAL EXPERIMENT STATIONS UNDER THE ACT OF CONGRESS OF MARCH 2, 1887.

Section 372 of the Postal Laws and Regulations of the United States reads as follows: Regulations for free transmission of bulletins and reports [under the act of Congress of March 2, 1887], are prescribed as follows:

(1) Any claimant of the privilege must apply for authority to exercise it to the Postmaster-General, stating the date of the establishment of such station, its proper name or designation, its official organization, and the names of its officers; the name of the university, college, school, or institution to which it is attached, if any, the legislation of the State or Territory providing for its establishment, and any other granting it the benefits of the provision made by Congress as aforesaid (accompanied by a copy of the act or acts), and whether any other such station in the same State or Territory is considered, or claims to be, also entitled to the privilege; and also the place of its location and the name of the post-office where the bulletins and reports will be mailed. The application must be signed by the officer in charge of the station.

(2) If such application be allowed after examination by the Department, the postmaster at the proper office will be instructed to admit such bulletins and reports to the mails in compliance with these regulations, and the officer in charge of the station will be notified thereof.

(3) Only such bulletins or reports as shall have been issued after the station became entitled to the benefits of the act can be transmitted free, and such bulletins or reports may be inclosed in envelopes or wrappers, sealed or unsealed. On the exterior of every envelope, wrapper, or package must be written or printed the name of the station and place of its location, the designation of the inclosed bulletin or report, and the word "Free" over the signature or facsimile thereof of the officer in charge of the station, to be affixed by himself or by someone duly deputed by him for that purpose. There may also be written or printed upon the envelope or wrapper a request that the postmaster at the office of delivery will notify the mailing station of the change of address of the addressee, or other reason for inability to deliver the same, and upon a bulk package a request to the postmaster to open and distribute the "franked" matter therein, in accordance with the address thereon.

Bulletins published by the United States Department of Agriculture and analogous to those of the station, and entitled to be mailed free under the penalty envelope of that Department, may also be adopted and mailed by the several stations, with their own publications, under the same regulations, and any bulletins or reports mailable free by any agricultural experiment station under these regulations may be so mailed by any other station having free mailing authority.

If such station's annual reports be printed by State authority, and consist in part of matter relating to the land-grant college to which such station is attached, then said report may be mailed free entire by the director of the station; provided, in his judgment, the whole consists of useful information of an agricultural character.

(4) The bulletins may be mailed to the stations, newspapers, or persons to whom they are by the foregoing act authorized to be sent, and the annual reports to any

address within the United States, Canada, Mexico, or Hawaiian Kingdom (Sandwich Islands), but not to other foreign countries, free of postage.

An order of the Postmaster-General dated January 3, 1899, provides "That any article entitled to transmission free of postage in the domestic mails of the United States, either in a 'penalty' envelope or under a duly authorized 'frank,' shall be entitled likewise to transmission by mail free of postage between places in Hawaii, Cuba, Porto Rico, and the Philippine Islands; from the United States to those islands, and from those islands to the United States."

Among rulings on matters of detail the following are the most important:

"In sending out bulletins from an agricultural experiment station it is permissible to inclose postal cards to enable correspondents of the station to acknowledge the receipt of its publications and to request their continuous transmission.

"Copies of the reports or bulletins of the agricultural experiment stations, which are purchased, paid, or subscribed for, or otherwise disposed of for gain, when sent in the mails, are not entitled to free carriage under the 'frank' of the director of the station."

Station bulletins and reports, consisting of typewritten matter duplicated on a mimeograph or other duplicating machine, "retain their character as free matter when properly franked by the director of the station."

Reports of State boards of agriculture or other State boards, commissioners, or officers, even though they contain station bulletins and reports, can not be sent free through the mails under the frank of the director of the station.

The catalogue of the college of which the station is a department can not be sent free through the mails under the frank of the director of the station, whether said catalogue is published separately or is bound together with a station publication.

RULINGS OF THE TREASURY DEPARTMENT AS TO THE CONSTRUCTION OF THE ACT OF CONGRESS OF MARCH 2, 1887, ESTABLISHING AGRICULTURAL EXPERIMENT STATIONS.

From copies of letters addressed to the Secretary of the Treasury and others by the First Comptroller of the Treasury, relating to the construction of the act of Congress of March 2, 1887, and acts supplementary thereto, the following digest has been prepared for the use of the stations. The sections are those of the act, the dates those of the decisions by the Comptroller:

Section 3—January 30, 1888.

That the annual financial statement of the stations, with vouchers, should not be sent to the Treasury Department, but that a copy simply of the report that is made to the governor is to be sent to the Secretary of the Treasury.

Section 3—January 31, 1888.

First. That the Treasury Department will not require officers of experiment stations to do or perform anything not specifically required by said bill.

Second. That the Secretary of the Treasury is not required to take a bond of the officers of said stations for the money paid over under the provisions of said act.

Third. That no reports will be required from the stations directly to the Secretary of the Treasury; but the governor of the State must send to the Secretary of the Treasury a copy of the report made to him by the colleges or stations.

Section 4—December 16, 1895.

The Solicitor of the Treasury writes: "I am of the opinion that there is no authority for an agricultural experiment station to sell its bulletins outside of the State or Territory. Congress appropriates for the publication and free distribution of the bulletins, and neither expressly nor by necessary implication authorizes their sale."

Section 6—August 2, 1888.

The fiscal year commences on the 1st day of July, corresponding with the fiscal year of the Government.

An agricultural station entitled to the benefits of said appropriations made by Congress can anticipate the payment to be made July 1, and make contracts of purchases prior to that time, if it shall be necessary to carry on the work of the station. Of course, no portion of said appropriations paid in quarterly installments can be drawn from the Treasury unless needed for the purposes indicated in the act; and so much of what is so drawn as may not have been expended within the year must be accounted for as part of the appropriation for the following year.

Section 8—January 30, 1888.

The State of New York ought to designate whether to the college or to the station, or to both, it desires the appropriation to be applied. The eighth section of the act seems to authorize the State to apply such benefits to experimental stations it may have established as it desires.

Where there are no experimental stations connected with the colleges, the legislatures of such States must connect the agricultural experiment station with the colleges already established under the act of July 2, 1862; there is no authority in the act authorizing the establishment of agricultural experiment stations independent of said colleges.

The act contemplates that where stations have already been established disconnected from the colleges, the legislatures of such States may make such provisions in regard thereto as they may deem proper; but it does not authorize the establishment of stations except in connection with the colleges that were at that time or might thereafter be established under the act of July 2, 1862.

Section 8—February 14, 1888.

Where there is an agricultural college or station which may have been established by State authority, and is maintained by the State, the eighth section of the above act would authorize the State to designate the station to which it desired the appropriation to be applied, whether to one or more, or all, and the Secretary of the Treasury should make the payment under the appropriation to whichever one the State might designate.

Sections 1 and 8—February 15, 1888.

(1) When an agricultural college or station has been established under the act of July 2, 1862, each college is entitled to the benefits of the provisions of said act (i. e., of March 2, 1887).

(2) In a State where an agricultural college has been established under the act of July 2, 1862, and agricultural stations have also been established, either under the act of July 2, 1862, or by State authority, before March 2, 1887, the legislature of such State shall determine which one of said institutions, or how many of them, shall receive the benefits of the act of March 2, 1887.

(3) If the legislature of any State in which an agricultural college has been established under the act of July 2, 1862, desires to establish an agricultural station which shall be entitled to the benefits of said act, it must establish such station in connection with said college.

Proviso to sections 1 and 8—December 7, 1888.

It is within the power of the legislature of any State that has accepted the provisions of said act of March 2, 1887, to dispose of the amount appropriated by Congress for said station to either one or all of the agricultural colleges or stations which may have been established in said State by virtue of either the provisions of the act of July 2, 1862, or the provisions of said eighth section of the act of March 2, 1887.

The whole responsibility rests upon the State legislature as to how the fund appropriated by Congress shall be distributed among these various institutions of the State, provided there is one or more agricultural colleges with which an agricultural station is connected, or one or more agricultural stations.

RULINGS OF THE DEPARTMENT OF AGRICULTURE ON THE WORK AND EXPENDITURES OF AGRICULTURAL EXPERIMENT STATIONS.¹

In connection with examinations of the work and expenditures of the agricultural experiment stations established in accordance with the act of Congress of March 2, 1887, under authority given to the Secretary of Agriculture by Congress, questions have arisen which have seemed to make it advisable to formulate the views of this Department on certain matters affecting the management of the stations under that act. The statements given below have therefore been prepared to cover the points which seem to require special attention:

EXPENDITURES FOR PERMANENT SUBSTATIONS.

This Department holds that the expenditure of funds appropriated in accordance with the provisions of the act of Congress of March 2, 1887, for the maintenance of permanent substations is contrary to the spirit and intent of said act. The act provides for an experiment station in each State and Territory, which, except in cases specified in the act, is to be a department of the college established under the act of Congress of July 2, 1862. The objects of the stations, as defined in the first-mentioned act, are evidently of such a character as to necessitate the services of scientific and expert workers. Most of the lines of investigation named in the act are general, rather than local, and involve scientific equipment and work. It is obviously the intent that the stations established under this act shall carry on important investigations which shall be of general benefit to the agriculture of the several States and Territories. The sum of \$15,000, which is annually appropriated by Congress under this act for each station, is only sufficient to carry out a limited number of investigations of the kinds contemplated by the act.

As the work of the stations in the different States has developed, it has been found necessary to limit, rather than expand, the lines of work of the individual stations. Thorough work in a few lines has been found much more effective and productive of more useful results than small investigations in numerous lines. When we consider the nature of the investigations, the amount of money provided for the work of each station, and the fact that the act expressly provides for only a single

¹ U. S. Dept. Agr., Office of Experiment Stations Circular 29.

station in connection with each college, it becomes very clear that expenditures such as are necessary to effectively maintain permanent substations ought not to be made from the funds granted by Congress to the States and Territories for experiment stations. The maintenance of permanent substations as a rule involves the erection of buildings and the making of other permanent improvements. The sums of money which can be expended for permanent improvements under the act of Congress aforesaid are so small that it is clear they were not intended to meet the needs of more than one station in each State and Territory.

When the legislature of a State or Territory has given its assent to the provisions of the act of Congress of March 2, 1887, and has designated the institution which shall receive the benefits of said act, it would seem to have exhausted its powers in the matter. The responsibility for the maintenance of an experiment station under said act devolves upon the governing board of the institution thus designated. If the legislature of the State or Territory sees fit to provide funds for the equipment and maintenance of other experiment stations and to put them under the control of the same governing board, well and good, but this does not in any way diminish the responsibility of the board to administer the funds granted by Congress in accordance with the provisions of said act.

The wisdom of Congress in limiting the number of stations to be established in each State and Territory under the aforesaid act has been clearly shown by the experience of the few States and Territories which have attempted the maintenance of substations with the funds granted under said act. The expense of maintaining substations has as a rule materially weakened the central station, and the investigations carried on at the substations have been superficial and temporary. It is granted that in many States and Territories more than one agricultural experiment station might do useful work, and in some States more than one station has already been successfully maintained; but in all these cases the State has given funds from its own treasury to supplement those given by Congress. It is also granted that experiment stations established under said act of Congress and having no other funds than those provided by that act will often need to carry on investigations in different localities in their respective States and Territories, but it is held that this should be done in such a way as will secure the thorough supervision of such investigations by the expert officers of the station and that arrangements for such experimental inquiries should not be of so permanent a character as to prevent the station from shifting its work from place to place as circumstances may require, nor involve the expenditure of funds in such amounts and in such ways as will weaken the work of the station as a whole.

As far as practicable, the cooperation of individuals and communities benefited by these special investigations should be sought, and if necessary the aid of the States invoked to carry on enterprises too great to be successfully conducted within the limits of the appropriation granted by Congress under the act aforesaid.

PURCHASE OR RENTAL OF LANDS FOR AGRICULTURAL EXPERIMENT STATIONS.

This Department holds that the purchase or rental of lands by the experiment stations from the funds appropriated in accordance with the provisions of the act of Congress of March 2, 1887, is contrary to the spirit and intent of said act. The act provides for "paying the necessary expenses of conducting investigations and experiments and printing and distributing the results. * * * *Provided, however,* That out of the first annual appropriation so received by any station an amount not exceeding one-fifth may be expended in the erection, enlargement, or repair of a building or buildings necessary for carrying on the work of such stations; and thereafter an amount not exceeding 5 per centum of such annual appropriation may be so expended." The only reference to land for the station in the act is in section 8, where State legislatures are authorized to apply appropriations made under said

act to separate agricultural colleges or schools established by the State "which shall have connected therewith an experimental farm or station." The strict limitation of the amount provided for buildings and the absence of any provision for the purchase or rental of lands, when taken in connection with the statement in the eighth section, which treats the farm as in a sense a necessary adjunct of the educational institution to which the whole or a part of the funds appropriated in accordance with said act might in certain cases be devoted, point to the conclusion that it was expected that the institution of which the station is a department would supply the land needed for experimental purposes and that charges for the purchase or rental of lands would not be made against the funds provided by Congress for the experiment station. This conclusion is reenforced by considerations of a wise and economic policy in the management of agricultural experiment stations, especially as relating to cases in which it might be desirable for the station to have land for experimental purposes in different localities. The investigations carried on by the stations in such cases being for the direct benefit of agriculture in the localities where the work is done, it seems only reasonable that persons or communities whose interests will be advanced by the station work should contribute the use of the small tracts of land which will be required for experimental purposes. Experience shows that in most cases the stations have had no difficulty in securing such land as they needed, without expense, and it is believed that this may be done in every case without injuriously affecting the interests of the stations.

EXPENDITURES BY AGRICULTURAL EXPERIMENT STATIONS FOR CARRYING ON FARM OPERATIONS.

This department holds that expenses incurred in conducting the operations of farms, whether the farms are connected with institutions established under the act of Congress of July 2, 1862, or not, are not a proper charge against the funds appropriated by Congress for agricultural experiment stations in accordance with the act of Congress of March 2, 1887, unless such operations definitely constitute a part of agricultural investigations or experiments planned and conducted in accordance with the terms of the act aforesaid under rules and regulations prescribed by the governing board of the station. The performance of ordinary farm operations by an experiment station does not constitute experimental work. Operations of this character by an experiment station should be confined to such as are a necessary part of experimental inquiries. Carrying on a farm for profit or as a model farm, or to secure funds which may be afterwards devoted to the erection of buildings for experiment station purposes, to the further development of experimental investigation, or to any other purpose however laudable and desirable, is not contemplated by the law as a part of the functions of an agricultural experiment station established under the act of Congress of March 2, 1887. Section 5 of that act plainly limits the expenditures of funds appropriated in accordance with said act to "the necessary expenses of conducting investigations and experiments and printing and distributing the results."

FUNDS ARISING FROM THE SALE OF FARM PRODUCTS OR OTHER PROPERTY OF AN AGRICULTURAL EXPERIMENT STATION.

This Department holds that moneys received from the sales of farm products or other property in the possession of an agricultural experiment station as the result of expenditures of funds received by the station in accordance with the act of Congress of March 2, 1887, rightfully belong to the experiment station as a department of the college or other institution with which it is connected, and may be expended in accordance with the laws or regulations governing the financial transactions of the governing board of the station, provided, however, that all expenses attending such sales, including those attending the delivery of the property into the posses-

sion of the purchaser, should be deducted from the gross receipts from the sales and should not be made a charge against the funds appropriated by Congress.

LIMIT OF EXPENDITURES OF EXPERIMENT STATIONS DURING ONE FISCAL YEAR.

This Department holds that expenses incurred by an agricultural experiment station in any one fiscal year to be paid from the funds provided under the act of Congress of March 2, 1887, should not exceed the amount appropriated to the station by Congress for that year, and especially that all personal services should be paid for out of the appropriation of the year in which they were performed, and that claims for compensation for such services can not properly be paid out of the appropriations for succeeding years. The several appropriations for experiment stations under the aforesaid act are for one year only, and officers of experiment stations have no authority to contract for expenditures beyond the year for which Congress has made appropriations.

This is plainly implied in the act aforesaid, inasmuch as section 6 provides that unexpended balances shall revert to the Treasury of the United States, "in order that the amount of money appropriated to any station shall not exceed the amount actually and necessarily required for its maintenance and support." The annual financial report rendered in the form prescribed by this Department should in every case include only the receipts and expenditures of the fiscal year for which the report is made.

EXPENDITURES BY AGRICULTURAL EXPERIMENT STATIONS FOR A WATER SYSTEM TO BE CHARGED UNDER "BUILDINGS AND REPAIRS."

This Department holds that expenditures by agricultural experiment stations from the funds appropriated in accordance with the act of Congress of March 2, 1887, for the construction of wells, cisterns, ponds, or other reservoirs for the storage of water, and for piping, and other materials for a system of storing and distributing water, are properly charged, under abstract 18 in the schedule for financial reports prescribed by this Department, as being for improvements on land which have hitherto been held to come under the head of "buildings and repairs." The fact that a water system may be a necessary adjunct of certain experimental inquiries does not affect the case, inasmuch as the limitations on expenditures for improvements contained in section 5 of the act of Congress of March 2, 1887, expressly stipulate that these improvements shall be such as are necessary for carrying on the work of the station.

EXPENDITURES BY AGRICULTURAL EXPERIMENT STATIONS FOR MEMBERSHIP IN AGRICULTURAL AND OTHER ORGANIZATIONS.

This Department holds that membership fees in associations and other organizations are not a proper charge against the funds appropriated by Congress in accordance with the act of March 2, 1887, except in the case of the Association of American Agricultural Colleges and Experiment Stations, which is held to be an essential part of the system of experiment stations established under said act.

THE BORROWING OF MONEY TO PAY THE EXPENSES OF AGRICULTURAL EXPERIMENT STATIONS.

This Department holds that experiment station officers have no authority to borrow money to be repaid out of appropriations made under the act of Congress of March 2, 1887, and that charges for interest can not properly be made against funds appropriated under that act.

A. C. TRUE, *Director*.

Approved:

J. STERLING MORTON, *Secretary*.

WASHINGTON, D. C., March 10, 1896.

THE USE OF EXPERIMENT STATION FUNDS FOR COLLEGE PURPOSES.

This Department holds that no portion of the funds appropriated by Congress in accordance with the act of March 2, 1887, can legally be used, either directly or indirectly, for paying the salaries or wages of professors, teachers, or other persons whose duties are confined to teaching, administration, or other work in connection with the courses of instruction given in the colleges with which the stations are connected, or in any other educational institution; nor should any other expenses connected with the work or facilities for instruction in school or college courses be paid from said fund. In case the same persons are employed in both the experiment station and the other departments of the college with which the station is connected a fair and equitable division of salaries or wages should be made, and in case of any other expenditures for the joint benefit of the experiment station and the other departments of the college the aforesaid funds should be charged with only a fair share of such expenditures.

Respectfully,

A. C. TRUE, *Director*.

Approved:

JAMES WILSON, *Secretary of Agriculture*.

WASHINGTON, D. C., *October 25, 1897*.

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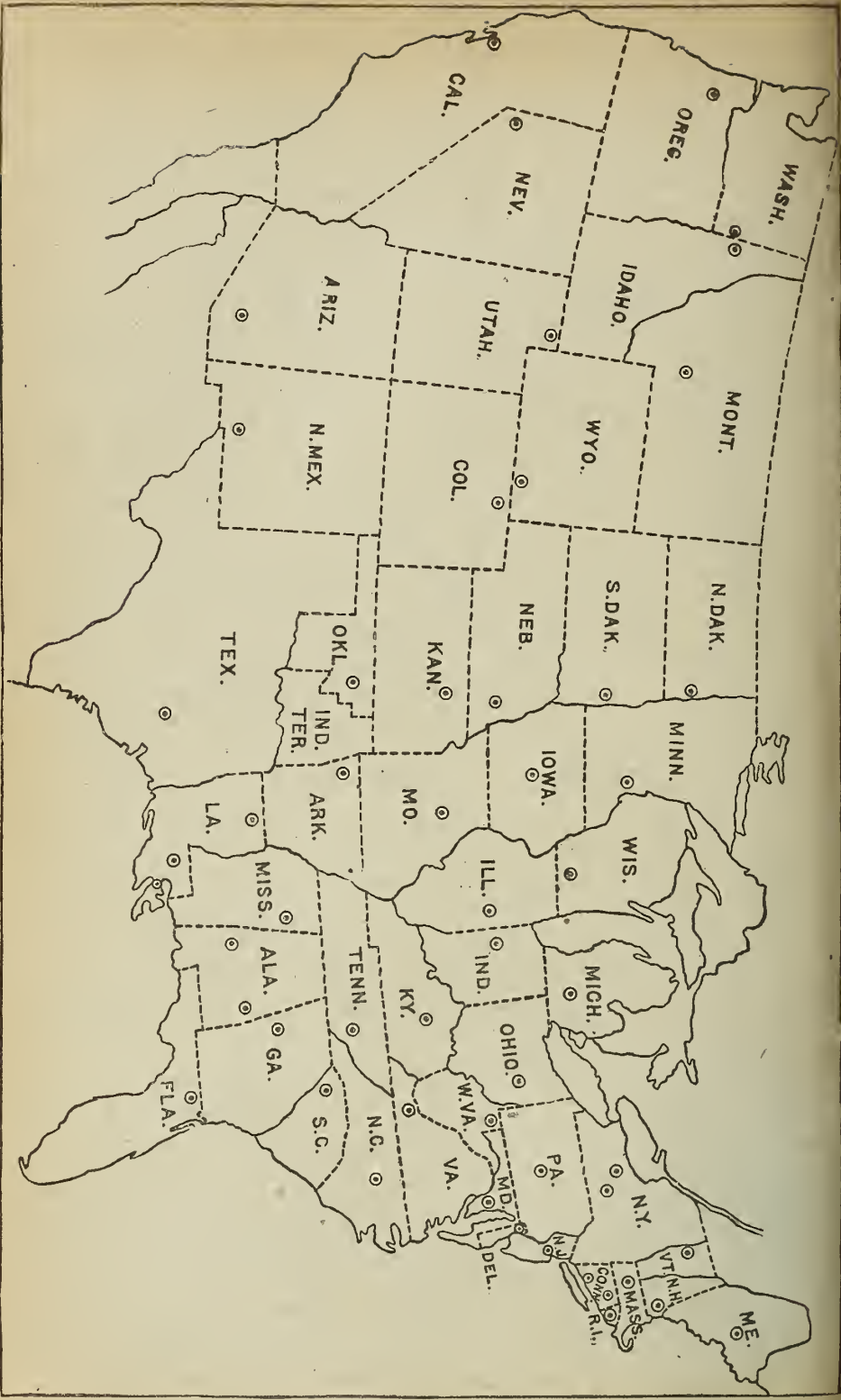
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